

## Vol.6



## Icon Guide



Tungsten Carbide



Micro Grain Carbide



FCS Coating (TiAlN)



TiAlN Coating



DLC Coating



118°



120°



135°



140°



X Thinning



Helix Angle 20°



Helix Angle 25°



Helix Angle 26°-32°



Helix Angle 30°



Helix Angle 30°-40°



Short Flute Length



Regular Flute Length



Semi Long Flute Length



Long Flute Length



3mm Shank



Cutting Dia. = Shank Dia.



DRILL SELECTION CHART

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3MM SHANK DRILLS



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STRAIGHT SHANK DRILLS



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SWEEP CUT DRILLS



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## Company Introduction

ATOM Precision of America, Inc. (ATOM) is a leading manufacturer of micro drills. Since its founding in 1934, ATOM has continuously developed high-quality micro drills, alongside advancements in the manufacturing industry. Today, ATOM has a global reputation as one of the world's most reliable brands, indispensable for use in a variety of industries, including medical, aerospace, automotive, electronics, and mold manufacturing.



Tomejiro Saito, Founder of ATOM

ATOM offers over 4,900 micro drills with a wide variety of diameters and flute lengths.

Our extensive product line makes it possible to serve customers quickly. ATOM can provide micro drills with diameters starting from  $\varnothing 0.02$  mm (0.0008"), with larger sizes available in 0.01 mm (0.0004") increments. With different flute lengths and drills with specialized coatings, ATOM has responded to the ever-changing needs of manufacturers in the micro-precision machining arena.

## Mission Statement

ATOM strives to contribute to the society in which it operates through the philosophy of "Made in Japan" quality. For ATOM, this takes the form of utilizing micro-precision grinding technology in the development, manufacturing, and sales of high-quality micro drills and related services. ATOM is determined to grow by devoting all our energy to the advancement of manufacturing industries worldwide. Through continuous research and development, ATOM aims to provide its users with innovative micro-drilling solutions as well as the peace of mind that comes with knowing they are using quality ATOM micro drills in their machining processes.



### "We value for all through creativity"

ATOM has pursued this core philosophy since its establishment in 1934. It is intended to guide the company's interactions not only with the customers and their experience in mind but also with the company's employees, their families, suppliers, distributors, and the community at large.



## 1934

- Began manufacturing and sales of hand hacksaw in Tokyo, Japan

## 1954

- Began manufacturing and sales of carbide bites

## 1955

- Began manufacturing and sales of carbide end mills, reamers, and custom cutting tools

## 1964

- Established Tokyo factory

## 1974

- Increased capital to 20 million yen

## 1976

- Began manufacturing and sales of standard straight shank drills

## 1978

- Established Kakuda factory in Miyagi, Japan

## 1982

- Increased capital to 40 million yen

## 1984

- Expanded Kakuda factory

## 1989

- First overseas subsidiary, ATOM Precision of America, Inc. opened in the USA
- Rebuilt Kakuda factory

## 1994

- Began manufacturing and sales of standard 3mm shank drills

## 2007

- Expanded Kakuda factory

## 2019

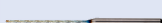
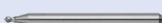
- Expanded Kakuda factory



New Kakuda factory in Miyagi, Japan



# DRILL SELECTION BY SERIES

| Drill Type            | Series    | Appearance                                                                          | Description                                    | Coating | Diameter mm  | Page  |  |
|-----------------------|-----------|-------------------------------------------------------------------------------------|------------------------------------------------|---------|--------------|-------|--|
| 3mm Shank Drills      | ADRS      |    | Short, Uncoated, For Non-Ferrous               |         | ø0.1-3       | p.52  |  |
|                       | ADR       |    | Regular, Uncoated, For Non-Ferrous             |         | ø0.02-3      | p.56  |  |
|                       | ADRS-L    |    | Semi Long, uncoated, For Non-Ferrous           |         | ø0.03-3      | p.60  |  |
|                       | ADRL      |    | Long, Uncoated, For Non-Ferrous                |         | ø0.03-3      | p.62  |  |
|                       | ADR-SP    |    | Super Precision, Uncoated, For Non-Ferrous     |         | ø0.015-1.995 | p.66  |  |
|                       | ADR-DLC   |    | Regular, DLC Coated, For Non-Ferrous           | DLC     | ø0.1-1       | p.70  |  |
|                       | ADRL-DLC  |    | Long, DLC Coated, For Non-Ferrous              | DLC     | ø0.1-1       | p.72  |  |
|                       | SXG30DN   |    | 30xD, DLC Coated, For Non-Ferrous              | DLC     | ø0.5-2       | p.75  |  |
|                       | SXG40DN   |    | 40xD, DLC Coated, For Non-Ferrous              | DLC     | ø0.5-2       | p.76  |  |
|                       | SXG50DN   |    | 50xD, DLC Coated, For Non-Ferrous              | DLC     | ø0.5-2       | p.77  |  |
|                       | ADRS-SV   |    | Short, FCS Coated, For Steels                  | FCS     | ø0.1-3       | p.78  |  |
|                       | ADR-SV    |    | Regular, FCS Coated, For Steels                | FCS     | ø0.02-3      | p.82  |  |
|                       | ADRS-L-SV |    | Semi Long, FCS Coated, For Steels              | FCS     | ø0.03-3      | p.86  |  |
|                       | ADRL-SV   |    | Long, FCS Coated, For Steels                   | FCS     | ø0.03-3      | p.88  |  |
|                       | ADR-SUS   |    | Regular, FCS Coated, For Hard-to-Cut Materials | FCS     | ø0.1-3       | p.92  |  |
|                       | ADRL-SUS  |    | Long, FCS Coated, For Hard-to-Cut Materials    | FCS     | ø0.1-3       | p.96  |  |
| Straight Shank Drills | ADS       |   | Regular, Uncoated, For Non-Ferrous             |         | ø0.3-13      | p.100 |  |
|                       | ADSL      |  | Semi Long, Uncoated, For Non-Ferrous           |         | ø0.3-13      | p.110 |  |
|                       | ADL       |  | Long, Uncoated, For Deep Drilling              |         | ø0.3-13      | p.112 |  |
|                       | ADLL      |  | Extra Long, Uncoated, For Deep Drilling        |         | ø0.3-13      | p.114 |  |
|                       | V-ADS     |  | Regular, TiAlN Coated, For General Purpose     | TiAlN   | ø0.3-6       | p.116 |  |
| Sweep Cut Drills      | ASWR      |  | Sweep Cut Drill, For Non-Ferrous               |         | ø0.1-3       | p.120 |  |
|                       | ASWD      |  | Sweep Cut Drill, For Non-Ferrous               |         | ø1-6         | p.121 |  |
| Guide Hole Drills     | ADPF30    |  | Guide Hole Drill, For Ferrous                  |         | ø0.02-3      | p.122 |  |
|                       | V-ADPF30  |  | Guide Hole Drill, TiAlN Coated, For Ferrous    | TiAlN   | ø0.02-3      | p.123 |  |
|                       | ADPN30    |  | Guide Hole Drill, For Non-Ferrous              |         | ø0.02-3      | p.124 |  |
|                       | ADPF309   |  | Guide Hole Drill, 90 Point, For Ferrous        |         | ø0.03-3      | p.125 |  |
|                       | ADPN309   |  | Guide Hole Drill, 90 Point, For Non-Ferrous    |         | ø0.03-3      | p.126 |  |

DRILL SELECTION BY SERIES

|  | Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|--|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|  |               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
|  | △             | △            | △           | △                | △         | ⊙               | ⊙             |               | △               | △               | ⊙        |
|  | △             | △            | △           | △                | △         | ⊙               | ⊙             |               | △               | △               | ⊙        |
|  | △             | △            | △           | △                | △         | ⊙               | ⊙             |               | △               | △               | ⊙        |
|  | △             | △            | △           | △                | △         | ⊙               | ⊙             |               | △               | △               | ⊙        |
|  | △             | △            | △           | △                | △         | ⊙               | ⊙             |               | △               | △               | ⊙        |
|  |               |              |             |                  |           | ⊙               | ○             |               |                 |                 | ○        |
|  |               |              |             |                  |           | ⊙               | ○             |               |                 |                 | ○        |
|  |               |              |             |                  |           | ⊙               | ○             |               |                 |                 | ⊙        |
|  |               |              |             |                  |           | ⊙               | ○             |               |                 |                 | ⊙        |
|  | ⊙             | ⊙            | ○           | ⊙                | ⊙         |                 |               | ○             | ⊙               | ⊙               |          |
|  | ⊙             | ⊙            | ○           | ⊙                | ⊙         |                 |               | ○             | ⊙               | ⊙               |          |
|  | ⊙             | ⊙            | ○           | ⊙                | ⊙         |                 |               | ○             | ⊙               | ⊙               |          |
|  | ⊙             | ⊙            | ○           | ⊙                | ⊙         |                 |               | ○             | ⊙               | ⊙               |          |
|  | ○             | ○            | ⊙           | ○                | ○         |                 |               | △             | ○               | ⊙               |          |
|  | ○             | ○            | ⊙           | ○                | ○         |                 |               | △             | ○               | ⊙               |          |
|  | △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |
|  | △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |
|  | △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |
|  | △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |
|  | ○             | ○            | ○           | ○                | ○         | ○               | ○             | △             | ⊙               | ○               | ○        |
|  |               |              |             |                  |           | ⊙               | ○             |               |                 |                 | ⊙        |
|  |               |              |             |                  |           | ⊙               | ○             |               |                 |                 | ⊙        |
|  | ⊙             | ⊙            | ⊙           | ⊙                | ⊙         |                 |               |               | ⊙               | ⊙               |          |
|  | ⊙             | ⊙            | ⊙           | ⊙                | ⊙         |                 |               | ○             | ⊙               | ⊙               |          |
|  |               |              |             |                  |           | ⊙               | ⊙             |               |                 |                 | ⊙        |
|  | ⊙             | ⊙            | ⊙           | ⊙                | ⊙         |                 |               |               | ⊙               | ⊙               |          |
|  |               |              |             |                  |           | ⊙               | ⊙             |               |                 |                 | ⊙        |

Drill Selection Chart

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADR-SP   | 0.015 | 0.0006 | 0.2 | 0.0079 | 38  | 66   |
| ADR      | 0.02  | 0.0008 | 0.2 | 0.0079 | 38  | 56   |
| ADR-SV   | 0.02  | 0.0008 | 0.2 | 0.0079 | 38  | 82   |
| ADR-SP   | 0.025 | 0.0010 | 0.3 | 0.0118 | 38  | 66   |
| ADR      | 0.03  | 0.0012 | 0.3 | 0.0118 | 38  | 56   |
| ADR-SV   | 0.03  | 0.0012 | 0.3 | 0.0118 | 38  | 82   |
| ADRSL    | 0.03  | 0.0012 | 0.5 | 0.0197 | 38  | 60   |
| ADRSL-SV | 0.03  | 0.0012 | 0.5 | 0.0197 | 38  | 86   |
| ADRL     | 0.03  | 0.0012 | 0.6 | 0.0236 | 38  | 62   |
| ADRL-SV  | 0.03  | 0.0012 | 0.6 | 0.0236 | 38  | 88   |
| ADR-SP   | 0.035 | 0.0014 | 0.4 | 0.0157 | 38  | 66   |
| ADR      | 0.04  | 0.0016 | 0.4 | 0.0157 | 38  | 56   |
| ADR-SV   | 0.04  | 0.0016 | 0.4 | 0.0157 | 38  | 82   |
| ADRSL    | 0.04  | 0.0016 | 0.6 | 0.0236 | 38  | 60   |
| ADRSL-SV | 0.04  | 0.0016 | 0.6 | 0.0236 | 38  | 86   |
| ADRL     | 0.04  | 0.0016 | 0.8 | 0.0315 | 38  | 62   |
| ADRL-SV  | 0.04  | 0.0016 | 0.8 | 0.0315 | 38  | 88   |
| ADR-SP   | 0.045 | 0.0018 | 0.5 | 0.0197 | 38  | 66   |
| ADR      | 0.05  | 0.0020 | 0.5 | 0.0197 | 38  | 56   |
| ADR-SV   | 0.05  | 0.0020 | 0.5 | 0.0197 | 38  | 82   |
| ADRSL    | 0.05  | 0.0020 | 0.8 | 0.0315 | 38  | 60   |
| ADRSL-SV | 0.05  | 0.0020 | 0.8 | 0.0315 | 38  | 86   |
| ADRL     | 0.05  | 0.0020 | 1.1 | 0.0433 | 38  | 62   |
| ADRL-SV  | 0.05  | 0.0020 | 1.1 | 0.0433 | 38  | 88   |
| ADR-SP   | 0.055 | 0.0022 | 0.6 | 0.0236 | 38  | 66   |
| ADR      | 0.06  | 0.0024 | 0.6 | 0.0236 | 38  | 56   |
| ADR-SV   | 0.06  | 0.0024 | 0.6 | 0.0236 | 38  | 82   |
| ADRSL    | 0.06  | 0.0024 | 0.8 | 0.0315 | 38  | 60   |
| ADRSL-SV | 0.06  | 0.0024 | 0.8 | 0.0315 | 38  | 86   |
| ADRL     | 0.06  | 0.0024 | 1.2 | 0.0472 | 38  | 62   |
| ADRL-SV  | 0.06  | 0.0024 | 1.2 | 0.0472 | 38  | 88   |
| ADR-SP   | 0.065 | 0.0026 | 0.7 | 0.0276 | 38  | 66   |
| ADR      | 0.07  | 0.0028 | 0.7 | 0.0276 | 38  | 56   |
| ADR-SV   | 0.07  | 0.0028 | 0.7 | 0.0276 | 38  | 82   |
| ADRSL    | 0.07  | 0.0028 | 1.1 | 0.0433 | 38  | 60   |
| ADRSL-SV | 0.07  | 0.0028 | 1.1 | 0.0433 | 38  | 86   |
| ADRL     | 0.07  | 0.0028 | 1.4 | 0.0551 | 38  | 62   |
| ADRL-SV  | 0.07  | 0.0028 | 1.4 | 0.0551 | 38  | 88   |
| ADR-SP   | 0.075 | 0.0030 | 0.8 | 0.0315 | 38  | 66   |
| ADR      | 0.08  | 0.0031 | 0.8 | 0.0315 | 38  | 56   |
| ADR-SV   | 0.08  | 0.0031 | 0.8 | 0.0315 | 38  | 82   |
| ADRSL    | 0.08  | 0.0031 | 1.2 | 0.0472 | 38  | 60   |
| ADRSL-SV | 0.08  | 0.0031 | 1.2 | 0.0472 | 38  | 86   |
| ADRL     | 0.08  | 0.0031 | 1.6 | 0.0630 | 38  | 62   |
| ADRL-SV  | 0.08  | 0.0031 | 1.6 | 0.0630 | 38  | 88   |
| ADR-SP   | 0.085 | 0.0033 | 0.9 | 0.0354 | 38  | 66   |
| ADR      | 0.09  | 0.0035 | 0.9 | 0.0354 | 38  | 56   |
| ADR-SV   | 0.09  | 0.0035 | 0.9 | 0.0354 | 38  | 82   |
| ADRSL    | 0.09  | 0.0035 | 1.2 | 0.0472 | 38  | 60   |
| ADRSL-SV | 0.09  | 0.0035 | 1.2 | 0.0472 | 38  | 86   |
| ADRL     | 0.09  | 0.0035 | 1.8 | 0.0709 | 38  | 62   |
| ADRL-SV  | 0.09  | 0.0035 | 1.8 | 0.0709 | 38  | 88   |

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADR-SP   | 0.095 | 0.0037 | 1.2 | 0.0472 | 38  | 66   |
| ADRS     | 0.10  | 0.0039 | 0.6 | 0.0236 | 38  | 52   |
| ADRS-SV  | 0.10  | 0.0039 | 0.6 | 0.0236 | 38  | 78   |
| ADR-SUS  | 0.10  | 0.0039 | 1   | 0.0394 | 38  | 92   |
| ADR      | 0.10  | 0.0039 | 1.2 | 0.0472 | 38  | 56   |
| ADR-DLC  | 0.10  | 0.0039 | 1.2 | 0.0472 | 38  | 70   |
| ADR-SV   | 0.10  | 0.0039 | 1.2 | 0.0472 | 38  | 82   |
| ASWR     | 0.10  | 0.0039 | 1.2 | 0.0472 | 38  | 120  |
| ADRL-SUS | 0.10  | 0.0039 | 1.5 | 0.0591 | 38  | 96   |
| ADRSL    | 0.10  | 0.0039 | 1.9 | 0.0748 | 38  | 60   |
| ADRSL-SV | 0.10  | 0.0039 | 1.9 | 0.0748 | 38  | 86   |
| ADRL     | 0.10  | 0.0039 | 2.5 | 0.0984 | 38  | 62   |
| ADRL-DLC | 0.10  | 0.0039 | 2.5 | 0.0984 | 38  | 72   |
| ADRL-SV  | 0.10  | 0.0039 | 2.5 | 0.0984 | 38  | 88   |
| ADR-SP   | 0.105 | 0.0041 | 1.2 | 0.0472 | 38  | 66   |
| ADRS     | 0.11  | 0.0043 | 0.6 | 0.0236 | 38  | 52   |
| ADRS-SV  | 0.11  | 0.0043 | 0.6 | 0.0236 | 38  | 78   |
| ADR-SUS  | 0.11  | 0.0043 | 1.1 | 0.0433 | 38  | 92   |
| ADR      | 0.11  | 0.0043 | 1.2 | 0.0472 | 38  | 56   |
| ADR-DLC  | 0.11  | 0.0043 | 1.2 | 0.0472 | 38  | 70   |
| ADR-SV   | 0.11  | 0.0043 | 1.2 | 0.0472 | 38  | 82   |
| ASWR     | 0.11  | 0.0043 | 1.2 | 0.0472 | 38  | 120  |
| ADRL-SUS | 0.11  | 0.0043 | 1.7 | 0.0669 | 38  | 96   |
| ADRSL    | 0.11  | 0.0043 | 1.9 | 0.0748 | 38  | 60   |
| ADRSL-SV | 0.11  | 0.0043 | 1.9 | 0.0748 | 38  | 86   |
| ADRL     | 0.11  | 0.0043 | 2.5 | 0.0984 | 38  | 62   |
| ADRL-DLC | 0.11  | 0.0043 | 2.5 | 0.0984 | 38  | 72   |
| ADRL-SV  | 0.11  | 0.0043 | 2.5 | 0.0984 | 38  | 88   |
| ADR-SP   | 0.115 | 0.0045 | 1.4 | 0.0551 | 38  | 66   |
| ADRS     | 0.12  | 0.0047 | 0.6 | 0.0236 | 38  | 52   |
| ADRS-SV  | 0.12  | 0.0047 | 0.6 | 0.0236 | 38  | 78   |
| ADR-SUS  | 0.12  | 0.0047 | 1.2 | 0.0472 | 38  | 92   |
| ADR      | 0.12  | 0.0047 | 1.4 | 0.0551 | 38  | 56   |
| ADR-DLC  | 0.12  | 0.0047 | 1.4 | 0.0551 | 38  | 70   |
| ADR-SV   | 0.12  | 0.0047 | 1.4 | 0.0551 | 38  | 82   |
| ASWR     | 0.12  | 0.0047 | 1.4 | 0.0551 | 38  | 120  |
| ADRL-SUS | 0.12  | 0.0047 | 1.8 | 0.0709 | 38  | 96   |
| ADRSL    | 0.12  | 0.0047 | 2.2 | 0.0866 | 38  | 60   |
| ADRSL-SV | 0.12  | 0.0047 | 2.2 | 0.0866 | 38  | 86   |
| ADRL     | 0.12  | 0.0047 | 3   | 0.1181 | 38  | 62   |
| ADRL-DLC | 0.12  | 0.0047 | 3   | 0.1181 | 38  | 72   |
| ADRL-SV  | 0.12  | 0.0047 | 3   | 0.1181 | 38  | 88   |
| ADR-SP   | 0.125 | 0.0049 | 1.4 | 0.0551 | 38  | 66   |
| ADRS     | 0.13  | 0.0051 | 0.6 | 0.0236 | 38  | 52   |
| ADRS-SV  | 0.13  | 0.0051 | 0.6 | 0.0236 | 38  | 78   |
| ADR-SUS  | 0.13  | 0.0051 | 1.3 | 0.0512 | 38  | 92   |
| ADR      | 0.13  | 0.0051 | 1.4 | 0.0551 | 38  | 56   |
| ADR-DLC  | 0.13  | 0.0051 | 1.4 | 0.0551 | 38  | 70   |
| ADR-SV   | 0.13  | 0.0051 | 1.4 | 0.0551 | 38  | 82   |
| ASWR     | 0.13  | 0.0051 | 1.4 | 0.0551 | 38  | 120  |
| ADRL-SUS | 0.13  | 0.0051 | 2   | 0.0787 | 38  | 96   |
| ADRSL    | 0.13  | 0.0051 | 2.2 | 0.0866 | 38  | 60   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series    | ØD    |        | FL  |        | OAL | Page |
|-----------|-------|--------|-----|--------|-----|------|
|           | mm    | inch   | mm  | inch   | mm  |      |
| ADRS-L-SV | 0.13  | 0.0051 | 2.2 | 0.0866 | 38  | 86   |
| ADRL      | 0.13  | 0.0051 | 3   | 0.1181 | 38  | 62   |
| ADRL-DLC  | 0.13  | 0.0051 | 3   | 0.1181 | 38  | 72   |
| ADRL-SV   | 0.13  | 0.0051 | 3   | 0.1181 | 38  | 88   |
| ADR-SP    | 0.135 | 0.0053 | 1.4 | 0.0551 | 38  | 66   |
| ADRS      | 0.14  | 0.0055 | 0.6 | 0.0236 | 38  | 52   |
| ADRS-SV   | 0.14  | 0.0055 | 0.6 | 0.0236 | 38  | 78   |
| ADR       | 0.14  | 0.0055 | 1.4 | 0.0551 | 38  | 56   |
| ADR-DLC   | 0.14  | 0.0055 | 1.4 | 0.0551 | 38  | 70   |
| ADR-SUS   | 0.14  | 0.0055 | 1.4 | 0.0551 | 38  | 92   |
| ADR-SV    | 0.14  | 0.0055 | 1.4 | 0.0551 | 38  | 82   |
| ASWR      | 0.14  | 0.0055 | 1.4 | 0.0551 | 38  | 120  |
| ADRL-SUS  | 0.14  | 0.0055 | 2   | 0.0787 | 38  | 96   |
| ADRS-L    | 0.14  | 0.0055 | 2.2 | 0.0866 | 38  | 60   |
| ADRS-L-SV | 0.14  | 0.0055 | 2.2 | 0.0866 | 38  | 86   |
| ADRL      | 0.14  | 0.0055 | 3   | 0.1181 | 38  | 62   |
| ADRL-DLC  | 0.14  | 0.0055 | 3   | 0.1181 | 38  | 72   |
| ADRL-SV   | 0.14  | 0.0055 | 3   | 0.1181 | 38  | 88   |
| ADR-SP    | 0.145 | 0.0057 | 1.8 | 0.0709 | 38  | 66   |
| ADRS      | 0.15  | 0.0059 | 0.8 | 0.0315 | 38  | 52   |
| ADRS-SV   | 0.15  | 0.0059 | 0.8 | 0.0315 | 38  | 78   |
| ADR-SUS   | 0.15  | 0.0059 | 1.5 | 0.0591 | 38  | 92   |
| ADR       | 0.15  | 0.0059 | 1.8 | 0.0709 | 38  | 56   |
| ADR-DLC   | 0.15  | 0.0059 | 1.8 | 0.0709 | 38  | 70   |
| ADR-SV    | 0.15  | 0.0059 | 1.8 | 0.0709 | 38  | 82   |
| ASWR      | 0.15  | 0.0059 | 1.8 | 0.0709 | 38  | 120  |
| ADRL-SUS  | 0.15  | 0.0059 | 2.3 | 0.0906 | 38  | 96   |
| ADRS-L    | 0.15  | 0.0059 | 2.9 | 0.1142 | 38  | 60   |
| ADRS-L-SV | 0.15  | 0.0059 | 2.9 | 0.1142 | 38  | 86   |
| ADRL      | 0.15  | 0.0059 | 4   | 0.1575 | 38  | 62   |
| ADRL-DLC  | 0.15  | 0.0059 | 4   | 0.1575 | 38  | 72   |
| ADRL-SV   | 0.15  | 0.0059 | 4   | 0.1575 | 38  | 88   |
| ADR-SP    | 0.155 | 0.0061 | 1.8 | 0.0709 | 38  | 66   |
| ADRS      | 0.16  | 0.0063 | 0.8 | 0.0315 | 38  | 52   |
| ADRS-SV   | 0.16  | 0.0063 | 0.8 | 0.0315 | 38  | 78   |
| ADR-SUS   | 0.16  | 0.0063 | 1.5 | 0.0591 | 38  | 92   |
| ADR       | 0.16  | 0.0063 | 1.8 | 0.0709 | 38  | 56   |
| ADR-DLC   | 0.16  | 0.0063 | 1.8 | 0.0709 | 38  | 70   |
| ADR-SV    | 0.16  | 0.0063 | 1.8 | 0.0709 | 38  | 82   |
| ASWR      | 0.16  | 0.0063 | 1.8 | 0.0709 | 38  | 120  |
| ADRL-SUS  | 0.16  | 0.0063 | 2.3 | 0.0906 | 38  | 96   |
| ADRS-L    | 0.16  | 0.0063 | 2.9 | 0.1142 | 38  | 60   |
| ADRS-L-SV | 0.16  | 0.0063 | 2.9 | 0.1142 | 38  | 86   |
| ADRL      | 0.16  | 0.0063 | 4   | 0.1575 | 38  | 62   |
| ADRL-DLC  | 0.16  | 0.0063 | 4   | 0.1575 | 38  | 72   |
| ADRL-SV   | 0.16  | 0.0063 | 4   | 0.1575 | 38  | 88   |
| ADR-SP    | 0.165 | 0.0065 | 1.8 | 0.0709 | 38  | 66   |
| ADRS      | 0.17  | 0.0067 | 0.8 | 0.0315 | 38  | 52   |
| ADRS-SV   | 0.17  | 0.0067 | 0.8 | 0.0315 | 38  | 78   |
| ADR-SUS   | 0.17  | 0.0067 | 1.5 | 0.0591 | 38  | 92   |
| ADR       | 0.17  | 0.0067 | 1.8 | 0.0709 | 38  | 56   |
| ADR-DLC   | 0.17  | 0.0067 | 1.8 | 0.0709 | 38  | 70   |

| Series    | ØD    |        | FL  |        | OAL | Page |
|-----------|-------|--------|-----|--------|-----|------|
|           | mm    | inch   | mm  | inch   | mm  |      |
| ADR-SV    | 0.17  | 0.0067 | 1.8 | 0.0709 | 38  | 82   |
| ASWR      | 0.17  | 0.0067 | 1.8 | 0.0709 | 38  | 120  |
| ADRL-SUS  | 0.17  | 0.0067 | 2.3 | 0.0906 | 38  | 96   |
| ADRS-L    | 0.17  | 0.0067 | 3.2 | 0.1260 | 38  | 60   |
| ADRS-L-SV | 0.17  | 0.0067 | 3.2 | 0.1260 | 38  | 86   |
| ADRL      | 0.17  | 0.0067 | 4.5 | 0.1772 | 38  | 62   |
| ADRL-DLC  | 0.17  | 0.0067 | 4.5 | 0.1772 | 38  | 72   |
| ADRL-SV   | 0.17  | 0.0067 | 4.5 | 0.1772 | 38  | 88   |
| ADR-SP    | 0.175 | 0.0069 | 2.1 | 0.0827 | 38  | 66   |
| ADRS      | 0.18  | 0.0071 | 1   | 0.0394 | 38  | 52   |
| ADRS-SV   | 0.18  | 0.0071 | 1   | 0.0394 | 38  | 78   |
| ADR-SUS   | 0.18  | 0.0071 | 1.8 | 0.0709 | 38  | 92   |
| ADR       | 0.18  | 0.0071 | 2.1 | 0.0827 | 38  | 56   |
| ADR-DLC   | 0.18  | 0.0071 | 2.1 | 0.0827 | 38  | 70   |
| ADR-SV    | 0.18  | 0.0071 | 2.1 | 0.0827 | 38  | 82   |
| ASWR      | 0.18  | 0.0071 | 2.1 | 0.0827 | 38  | 120  |
| ADRL-SUS  | 0.18  | 0.0071 | 2.7 | 0.1063 | 38  | 96   |
| ADRS-L    | 0.18  | 0.0071 | 3.3 | 0.1299 | 38  | 60   |
| ADRS-L-SV | 0.18  | 0.0071 | 3.3 | 0.1299 | 38  | 86   |
| ADRL      | 0.18  | 0.0071 | 4.5 | 0.1772 | 38  | 62   |
| ADRL-DLC  | 0.18  | 0.0071 | 4.5 | 0.1772 | 38  | 72   |
| ADRL-SV   | 0.18  | 0.0071 | 4.5 | 0.1772 | 38  | 88   |
| ADR-SP    | 0.185 | 0.0073 | 2.1 | 0.0827 | 38  | 66   |
| ADRS      | 0.19  | 0.0075 | 1   | 0.0394 | 38  | 52   |
| ADRS-SV   | 0.19  | 0.0075 | 1   | 0.0394 | 38  | 78   |
| ADR-SUS   | 0.19  | 0.0075 | 1.8 | 0.0709 | 38  | 92   |
| ADR       | 0.19  | 0.0075 | 2.1 | 0.0827 | 38  | 56   |
| ADR-DLC   | 0.19  | 0.0075 | 2.1 | 0.0827 | 38  | 70   |
| ADR-SV    | 0.19  | 0.0075 | 2.1 | 0.0827 | 38  | 82   |
| ASWR      | 0.19  | 0.0075 | 2.1 | 0.0827 | 38  | 120  |
| ADRL-SUS  | 0.19  | 0.0075 | 2.7 | 0.1063 | 38  | 96   |
| ADRS-L    | 0.19  | 0.0075 | 3.3 | 0.1299 | 38  | 60   |
| ADRS-L-SV | 0.19  | 0.0075 | 3.3 | 0.1299 | 38  | 86   |
| ADRL      | 0.19  | 0.0075 | 4.5 | 0.1772 | 38  | 62   |
| ADRL-DLC  | 0.19  | 0.0075 | 4.5 | 0.1772 | 38  | 72   |
| ADRL-SV   | 0.19  | 0.0075 | 4.5 | 0.1772 | 38  | 88   |
| ADR-SP    | 0.195 | 0.0077 | 2.4 | 0.0945 | 38  | 66   |
| ADRS      | 0.20  | 0.0079 | 1   | 0.0394 | 38  | 52   |
| ADRS-SV   | 0.20  | 0.0079 | 1   | 0.0394 | 38  | 78   |
| ADR-SUS   | 0.20  | 0.0079 | 2   | 0.0787 | 38  | 92   |
| ADR       | 0.20  | 0.0079 | 2.4 | 0.0945 | 38  | 56   |
| ADR-DLC   | 0.20  | 0.0079 | 2.4 | 0.0945 | 38  | 70   |
| ADR-SV    | 0.20  | 0.0079 | 2.4 | 0.0945 | 38  | 82   |
| ASWR      | 0.20  | 0.0079 | 2.4 | 0.0945 | 38  | 120  |
| ADRL-SUS  | 0.20  | 0.0079 | 3   | 0.1181 | 38  | 96   |
| ADRS-L    | 0.20  | 0.0079 | 4   | 0.1575 | 38  | 60   |
| ADRS-L-SV | 0.20  | 0.0079 | 4   | 0.1575 | 38  | 86   |
| ADRL      | 0.20  | 0.0079 | 6   | 0.2362 | 38  | 62   |
| ADRL-DLC  | 0.20  | 0.0079 | 6   | 0.2362 | 38  | 72   |
| ADRL-SV   | 0.20  | 0.0079 | 6   | 0.2362 | 38  | 88   |
| ADR-SP    | 0.205 | 0.0081 | 2.4 | 0.0945 | 38  | 66   |
| ADRS      | 0.21  | 0.0083 | 1   | 0.0394 | 38  | 52   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADRS-SV  | 0.21  | 0.0083 | 1   | 0.0394 | 38  | 78   |
| ADR-SUS  | 0.21  | 0.0083 | 2   | 0.0787 | 38  | 92   |
| ADR      | 0.21  | 0.0083 | 2.4 | 0.0945 | 38  | 56   |
| ADR-DLC  | 0.21  | 0.0083 | 2.4 | 0.0945 | 38  | 70   |
| ADR-SV   | 0.21  | 0.0083 | 2.4 | 0.0945 | 38  | 82   |
| ASWR     | 0.21  | 0.0083 | 2.4 | 0.0945 | 38  | 120  |
| ADRL-SUS | 0.21  | 0.0083 | 3   | 0.1181 | 38  | 96   |
| ADRSL    | 0.21  | 0.0083 | 4   | 0.1575 | 38  | 60   |
| ADRSL-SV | 0.21  | 0.0083 | 4   | 0.1575 | 38  | 86   |
| ADRL     | 0.21  | 0.0083 | 6   | 0.2362 | 38  | 62   |
| ADRL-DLC | 0.21  | 0.0083 | 6   | 0.2362 | 38  | 72   |
| ADRL-SV  | 0.21  | 0.0083 | 6   | 0.2362 | 38  | 88   |
| ADR-SP   | 0.215 | 0.0085 | 2.6 | 0.1024 | 38  | 66   |
| ADRS     | 0.22  | 0.0087 | 1.2 | 0.0472 | 38  | 52   |
| ADRS-SV  | 0.22  | 0.0087 | 1.2 | 0.0472 | 38  | 78   |
| ADR-SUS  | 0.22  | 0.0087 | 2   | 0.0787 | 38  | 92   |
| ADR      | 0.22  | 0.0087 | 2.6 | 0.1024 | 38  | 56   |
| ADR-DLC  | 0.22  | 0.0087 | 2.6 | 0.1024 | 38  | 70   |
| ADR-SV   | 0.22  | 0.0087 | 2.6 | 0.1024 | 38  | 82   |
| ASWR     | 0.22  | 0.0087 | 2.6 | 0.1024 | 38  | 120  |
| ADRL-SUS | 0.22  | 0.0087 | 3   | 0.1181 | 38  | 96   |
| ADRSL    | 0.22  | 0.0087 | 4.3 | 0.1693 | 38  | 60   |
| ADRSL-SV | 0.22  | 0.0087 | 4.3 | 0.1693 | 38  | 86   |
| ADRL     | 0.22  | 0.0087 | 6   | 0.2362 | 38  | 62   |
| ADRL-DLC | 0.22  | 0.0087 | 6   | 0.2362 | 38  | 72   |
| ADRL-SV  | 0.22  | 0.0087 | 6   | 0.2362 | 38  | 88   |
| ADR-SP   | 0.225 | 0.0089 | 2.6 | 0.1024 | 38  | 66   |
| ADRS     | 0.23  | 0.0091 | 1.2 | 0.0472 | 38  | 52   |
| ADRS-SV  | 0.23  | 0.0091 | 1.2 | 0.0472 | 38  | 78   |
| ADR-SUS  | 0.23  | 0.0091 | 2.3 | 0.0906 | 38  | 92   |
| ADR      | 0.23  | 0.0091 | 2.6 | 0.1024 | 38  | 56   |
| ADR-DLC  | 0.23  | 0.0091 | 2.6 | 0.1024 | 38  | 70   |
| ADR-SV   | 0.23  | 0.0091 | 2.6 | 0.1024 | 38  | 82   |
| ASWR     | 0.23  | 0.0091 | 2.6 | 0.1024 | 38  | 120  |
| ADRL-SUS | 0.23  | 0.0091 | 3.5 | 0.1378 | 38  | 96   |
| ADRSL    | 0.23  | 0.0091 | 4.3 | 0.1693 | 38  | 60   |
| ADRSL-SV | 0.23  | 0.0091 | 4.3 | 0.1693 | 38  | 86   |
| ADRL     | 0.23  | 0.0091 | 6   | 0.2362 | 38  | 62   |
| ADRL-DLC | 0.23  | 0.0091 | 6   | 0.2362 | 38  | 72   |
| ADRL-SV  | 0.23  | 0.0091 | 6   | 0.2362 | 38  | 88   |
| ADR-SP   | 0.235 | 0.0093 | 2.6 | 0.1024 | 38  | 66   |
| ADRS     | 0.24  | 0.0094 | 1.2 | 0.0472 | 38  | 52   |
| ADRS-SV  | 0.24  | 0.0094 | 1.2 | 0.0472 | 38  | 78   |
| ADR-SUS  | 0.24  | 0.0094 | 2.3 | 0.0906 | 38  | 92   |
| ADR      | 0.24  | 0.0094 | 2.6 | 0.1024 | 38  | 56   |
| ADR-DLC  | 0.24  | 0.0094 | 2.6 | 0.1024 | 38  | 70   |
| ADR-SV   | 0.24  | 0.0094 | 2.6 | 0.1024 | 38  | 82   |
| ASWR     | 0.24  | 0.0094 | 2.6 | 0.1024 | 38  | 120  |
| ADRL-SUS | 0.24  | 0.0094 | 3.5 | 0.1378 | 38  | 96   |
| ADRSL    | 0.24  | 0.0094 | 4.3 | 0.1693 | 38  | 60   |
| ADRSL-SV | 0.24  | 0.0094 | 4.3 | 0.1693 | 38  | 86   |
| ADRL     | 0.24  | 0.0094 | 6   | 0.2362 | 38  | 62   |

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADRL-DLC | 0.24  | 0.0094 | 6   | 0.2362 | 38  | 72   |
| ADRL-SV  | 0.24  | 0.0094 | 6   | 0.2362 | 38  | 88   |
| ADR-SP   | 0.245 | 0.0096 | 3   | 0.1181 | 38  | 66   |
| ADRS     | 0.25  | 0.0098 | 1.5 | 0.0591 | 38  | 52   |
| ADRS-SV  | 0.25  | 0.0098 | 1.5 | 0.0591 | 38  | 78   |
| ADR-SUS  | 0.25  | 0.0098 | 2.5 | 0.0984 | 38  | 92   |
| ADR      | 0.25  | 0.0098 | 3   | 0.1181 | 38  | 56   |
| ADR-DLC  | 0.25  | 0.0098 | 3   | 0.1181 | 38  | 70   |
| ADR-SV   | 0.25  | 0.0098 | 3   | 0.1181 | 38  | 82   |
| ASWR     | 0.25  | 0.0098 | 3   | 0.1181 | 38  | 120  |
| ADRL-SUS | 0.25  | 0.0098 | 3.8 | 0.1496 | 38  | 96   |
| ADRSL    | 0.25  | 0.0098 | 5   | 0.1969 | 38  | 60   |
| ADRSL-SV | 0.25  | 0.0098 | 5   | 0.1969 | 38  | 86   |
| ADRL     | 0.25  | 0.0098 | 7   | 0.2756 | 38  | 62   |
| ADRL-DLC | 0.25  | 0.0098 | 7   | 0.2756 | 38  | 72   |
| ADRL-SV  | 0.25  | 0.0098 | 7   | 0.2756 | 38  | 88   |
| ADR-SP   | 0.255 | 0.0100 | 3   | 0.1181 | 38  | 66   |
| ADRS     | 0.26  | 0.0102 | 1.5 | 0.0591 | 38  | 52   |
| ADRS-SV  | 0.26  | 0.0102 | 1.5 | 0.0591 | 38  | 78   |
| ADR-SUS  | 0.26  | 0.0102 | 2.5 | 0.0984 | 38  | 92   |
| ADR      | 0.26  | 0.0102 | 3   | 0.1181 | 38  | 56   |
| ADR-DLC  | 0.26  | 0.0102 | 3   | 0.1181 | 38  | 70   |
| ADR-SV   | 0.26  | 0.0102 | 3   | 0.1181 | 38  | 82   |
| ASWR     | 0.26  | 0.0102 | 3   | 0.1181 | 38  | 120  |
| ADRL-SUS | 0.26  | 0.0102 | 3.8 | 0.1496 | 38  | 96   |
| ADRSL    | 0.26  | 0.0102 | 5   | 0.1969 | 38  | 60   |
| ADRSL-SV | 0.26  | 0.0102 | 5   | 0.1969 | 38  | 86   |
| ADRL     | 0.26  | 0.0102 | 7   | 0.2756 | 38  | 62   |
| ADRL-DLC | 0.26  | 0.0102 | 7   | 0.2756 | 38  | 72   |
| ADRL-SV  | 0.26  | 0.0102 | 7   | 0.2756 | 38  | 88   |
| ADR-SP   | 0.265 | 0.0104 | 3   | 0.1181 | 38  | 66   |
| ADRS     | 0.27  | 0.0106 | 1.5 | 0.0591 | 38  | 52   |
| ADRS-SV  | 0.27  | 0.0106 | 1.5 | 0.0591 | 38  | 78   |
| ADR-SUS  | 0.27  | 0.0106 | 2.5 | 0.0984 | 38  | 92   |
| ADR      | 0.27  | 0.0106 | 3   | 0.1181 | 38  | 56   |
| ADR-DLC  | 0.27  | 0.0106 | 3   | 0.1181 | 38  | 70   |
| ADR-SV   | 0.27  | 0.0106 | 3   | 0.1181 | 38  | 82   |
| ASWR     | 0.27  | 0.0106 | 3   | 0.1181 | 38  | 120  |
| ADRL-SUS | 0.27  | 0.0106 | 3.8 | 0.1496 | 38  | 96   |
| ADRSL    | 0.27  | 0.0106 | 5   | 0.1969 | 38  | 60   |
| ADRSL-SV | 0.27  | 0.0106 | 5   | 0.1969 | 38  | 86   |
| ADRL     | 0.27  | 0.0106 | 7   | 0.2756 | 38  | 62   |
| ADRL-DLC | 0.27  | 0.0106 | 7   | 0.2756 | 38  | 72   |
| ADRL-SV  | 0.27  | 0.0106 | 7   | 0.2756 | 38  | 88   |
| ADR-SP   | 0.275 | 0.0108 | 3.3 | 0.1299 | 38  | 66   |
| ADRS     | 0.28  | 0.0110 | 1.5 | 0.0591 | 38  | 52   |
| ADRS-SV  | 0.28  | 0.0110 | 1.5 | 0.0591 | 38  | 78   |
| ADR-SUS  | 0.28  | 0.0110 | 2.8 | 0.1102 | 38  | 92   |
| ADR      | 0.28  | 0.0110 | 3.3 | 0.1299 | 38  | 56   |
| ADR-DLC  | 0.28  | 0.0110 | 3.3 | 0.1299 | 38  | 70   |
| ADR-SV   | 0.28  | 0.0110 | 3.3 | 0.1299 | 38  | 82   |
| ASWR     | 0.28  | 0.0110 | 3.3 | 0.1299 | 38  | 120  |



# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADRL-SUS | 0.28  | 0.0110 | 4.2 | 0.1654 | 38  | 96   |
| ADRL-SV  | 0.28  | 0.0110 | 5.2 | 0.2047 | 38  | 60   |
| ADRL-SV  | 0.28  | 0.0110 | 5.2 | 0.2047 | 38  | 86   |
| ADRL     | 0.28  | 0.0110 | 7   | 0.2756 | 38  | 62   |
| ADRL-DLC | 0.28  | 0.0110 | 7   | 0.2756 | 38  | 72   |
| ADRL-SV  | 0.28  | 0.0110 | 7   | 0.2756 | 38  | 88   |
| ADR-SP   | 0.285 | 0.0112 | 3.3 | 0.1299 | 38  | 66   |
| ADRS     | 0.29  | 0.0114 | 1.5 | 0.0591 | 38  | 52   |
| ADRS-SV  | 0.29  | 0.0114 | 1.5 | 0.0591 | 38  | 78   |
| ADR-SUS  | 0.29  | 0.0114 | 2.8 | 0.1102 | 38  | 92   |
| ADR      | 0.29  | 0.0114 | 3.3 | 0.1299 | 38  | 56   |
| ADR-DLC  | 0.29  | 0.0114 | 3.3 | 0.1299 | 38  | 70   |
| ADR-SV   | 0.29  | 0.0114 | 3.3 | 0.1299 | 38  | 82   |
| ASWR     | 0.29  | 0.0114 | 3.3 | 0.1299 | 38  | 120  |
| ADRL-SUS | 0.29  | 0.0114 | 4.2 | 0.1654 | 38  | 96   |
| ADRL-SV  | 0.29  | 0.0114 | 5.2 | 0.2047 | 38  | 60   |
| ADRL-SV  | 0.29  | 0.0114 | 5.2 | 0.2047 | 38  | 86   |
| ADRL     | 0.29  | 0.0114 | 7   | 0.2756 | 38  | 62   |
| ADRL-DLC | 0.29  | 0.0114 | 7   | 0.2756 | 38  | 72   |
| ADRL-SV  | 0.29  | 0.0114 | 7   | 0.2756 | 38  | 88   |
| ADR-SP   | 0.295 | 0.0116 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.30  | 0.0118 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.30  | 0.0118 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.30  | 0.0118 | 3   | 0.1181 | 38  | 92   |
| ADS      | 0.30  | 0.0118 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.30  | 0.0118 | 4   | 0.1575 | 30  | 116  |
| ADRL-SUS | 0.30  | 0.0118 | 4.5 | 0.1772 | 38  | 96   |
| ADR      | 0.30  | 0.0118 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.30  | 0.0118 | 5   | 0.1969 | 38  | 70   |
| ADR-SV   | 0.30  | 0.0118 | 5   | 0.1969 | 38  | 82   |
| ASWR     | 0.30  | 0.0118 | 5   | 0.1969 | 38  | 120  |
| ADRL-SV  | 0.30  | 0.0118 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.30  | 0.0118 | 7   | 0.2756 | 38  | 86   |
| ADSL     | 0.30  | 0.0118 | 8   | 0.3150 | 40  | 110  |
| ADRL     | 0.30  | 0.0118 | 9   | 0.3543 | 45  | 62   |
| ADRL-DLC | 0.30  | 0.0118 | 9   | 0.3543 | 45  | 72   |
| ADRL-SV  | 0.30  | 0.0118 | 9   | 0.3543 | 45  | 88   |
| ADL      | 0.30  | 0.0118 | 10  | 0.3937 | 60  | 112  |
| ADLL     | 0.30  | 0.0118 | 15  | 0.5906 | 75  | 114  |
| ADR-SP   | 0.305 | 0.0120 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.31  | 0.0122 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.31  | 0.0122 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.31  | 0.0122 | 3   | 0.1181 | 38  | 92   |
| ADS      | 0.31  | 0.0122 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.31  | 0.0122 | 4   | 0.1575 | 30  | 116  |
| ADRL-SUS | 0.31  | 0.0122 | 4.5 | 0.1772 | 38  | 96   |
| ADR      | 0.31  | 0.0122 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.31  | 0.0122 | 5   | 0.1969 | 38  | 70   |
| ADR-SV   | 0.31  | 0.0122 | 5   | 0.1969 | 38  | 82   |
| ADRL-SV  | 0.31  | 0.0122 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.31  | 0.0122 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.31  | 0.0122 | 9   | 0.3543 | 45  | 62   |
| ADRL-DLC | 0.31  | 0.0122 | 9   | 0.3543 | 45  | 72   |
| ADRL-SV  | 0.31  | 0.0122 | 9   | 0.3543 | 45  | 88   |
| ADR-SP   | 0.315 | 0.0124 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.32  | 0.0126 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.32  | 0.0126 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.32  | 0.0126 | 3   | 0.1181 | 38  | 92   |
| ADS      | 0.32  | 0.0126 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.32  | 0.0126 | 4   | 0.1575 | 30  | 116  |
| ADRL-SUS | 0.32  | 0.0126 | 4.5 | 0.1772 | 38  | 96   |
| ADR      | 0.32  | 0.0126 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.32  | 0.0126 | 5   | 0.1969 | 38  | 70   |
| ADR-SV   | 0.32  | 0.0126 | 5   | 0.1969 | 38  | 82   |
| ADRL-SV  | 0.32  | 0.0126 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.32  | 0.0126 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.32  | 0.0126 | 9   | 0.3543 | 45  | 62   |
| ADRL-DLC | 0.32  | 0.0126 | 9   | 0.3543 | 45  | 72   |
| ADRL-SV  | 0.32  | 0.0126 | 9   | 0.3543 | 45  | 88   |
| ADR-SP   | 0.325 | 0.0128 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.33  | 0.0130 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.33  | 0.0130 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.33  | 0.0130 | 3.3 | 0.1299 | 38  | 92   |
| ADS      | 0.33  | 0.0130 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.33  | 0.0130 | 4   | 0.1575 | 30  | 116  |
| ADR      | 0.33  | 0.0130 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.33  | 0.0130 | 5   | 0.1969 | 38  | 70   |
| ADRL-SUS | 0.33  | 0.0130 | 5   | 0.1969 | 38  | 96   |
| ADR-SV   | 0.33  | 0.0130 | 5   | 0.1969 | 38  | 82   |
| ADRL-SV  | 0.33  | 0.0130 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.33  | 0.0130 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.33  | 0.0130 | 9   | 0.3543 | 45  | 62   |
| ADRL-DLC | 0.33  | 0.0130 | 9   | 0.3543 | 45  | 72   |
| ADRL-SV  | 0.33  | 0.0130 | 9   | 0.3543 | 45  | 88   |
| ADR-SP   | 0.335 | 0.0132 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.34  | 0.0134 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.34  | 0.0134 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.34  | 0.0134 | 3.3 | 0.1299 | 38  | 92   |
| ADS      | 0.34  | 0.0134 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.34  | 0.0134 | 4   | 0.1575 | 30  | 116  |
| ADR      | 0.34  | 0.0134 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.34  | 0.0134 | 5   | 0.1969 | 38  | 70   |
| ADRL-SUS | 0.34  | 0.0134 | 5   | 0.1969 | 38  | 96   |
| ADR-SV   | 0.34  | 0.0134 | 5   | 0.1969 | 38  | 82   |
| ADRL-SV  | 0.34  | 0.0134 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.34  | 0.0134 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.34  | 0.0134 | 9   | 0.3543 | 45  | 62   |
| ADRL-DLC | 0.34  | 0.0134 | 9   | 0.3543 | 45  | 72   |
| ADRL-SV  | 0.34  | 0.0134 | 9   | 0.3543 | 45  | 88   |
| ADR-SP   | 0.345 | 0.0136 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.35  | 0.0138 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.35  | 0.0138 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.35  | 0.0138 | 3.5 | 0.1378 | 38  | 92   |
| ADS      | 0.35  | 0.0138 | 4   | 0.1575 | 30  | 100  |

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADRL-DLC | 0.31  | 0.0122 | 9   | 0.3543 | 45  | 72   |
| ADRL-SV  | 0.31  | 0.0122 | 9   | 0.3543 | 45  | 88   |
| ADR-SP   | 0.315 | 0.0124 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.32  | 0.0126 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.32  | 0.0126 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.32  | 0.0126 | 3   | 0.1181 | 38  | 92   |
| ADS      | 0.32  | 0.0126 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.32  | 0.0126 | 4   | 0.1575 | 30  | 116  |
| ADRL-SUS | 0.32  | 0.0126 | 4.5 | 0.1772 | 38  | 96   |
| ADR      | 0.32  | 0.0126 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.32  | 0.0126 | 5   | 0.1969 | 38  | 70   |
| ADR-SV   | 0.32  | 0.0126 | 5   | 0.1969 | 38  | 82   |
| ADRL-SV  | 0.32  | 0.0126 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.32  | 0.0126 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.32  | 0.0126 | 9   | 0.3543 | 45  | 62   |
| ADRL-DLC | 0.32  | 0.0126 | 9   | 0.3543 | 45  | 72   |
| ADRL-SV  | 0.32  | 0.0126 | 9   | 0.3543 | 45  | 88   |
| ADR-SP   | 0.325 | 0.0128 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.33  | 0.0130 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.33  | 0.0130 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.33  | 0.0130 | 3.3 | 0.1299 | 38  | 92   |
| ADS      | 0.33  | 0.0130 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.33  | 0.0130 | 4   | 0.1575 | 30  | 116  |
| ADR      | 0.33  | 0.0130 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.33  | 0.0130 | 5   | 0.1969 | 38  | 70   |
| ADRL-SUS | 0.33  | 0.0130 | 5   | 0.1969 | 38  | 96   |
| ADR-SV   | 0.33  | 0.0130 | 5   | 0.1969 | 38  | 82   |
| ADRL-SV  | 0.33  | 0.0130 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.33  | 0.0130 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.33  | 0.0130 | 9   | 0.3543 | 45  | 62   |
| ADRL-DLC | 0.33  | 0.0130 | 9   | 0.3543 | 45  | 72   |
| ADRL-SV  | 0.33  | 0.0130 | 9   | 0.3543 | 45  | 88   |
| ADR-SP   | 0.335 | 0.0132 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.34  | 0.0134 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.34  | 0.0134 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.34  | 0.0134 | 3.3 | 0.1299 | 38  | 92   |
| ADS      | 0.34  | 0.0134 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.34  | 0.0134 | 4   | 0.1575 | 30  | 116  |
| ADR      | 0.34  | 0.0134 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.34  | 0.0134 | 5   | 0.1969 | 38  | 70   |
| ADRL-SUS | 0.34  | 0.0134 | 5   | 0.1969 | 38  | 96   |
| ADR-SV   | 0.34  | 0.0134 | 5   | 0.1969 | 38  | 82   |
| ADRL-SV  | 0.34  | 0.0134 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.34  | 0.0134 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.34  | 0.0134 | 9   | 0.3543 | 45  | 62   |
| ADRL-DLC | 0.34  | 0.0134 | 9   | 0.3543 | 45  | 72   |
| ADRL-SV  | 0.34  | 0.0134 | 9   | 0.3543 | 45  | 88   |
| ADR-SP   | 0.345 | 0.0136 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.35  | 0.0138 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.35  | 0.0138 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.35  | 0.0138 | 3.5 | 0.1378 | 38  | 92   |
| ADS      | 0.35  | 0.0138 | 4   | 0.1575 | 30  | 100  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| V-ADS    | 0.35  | 0.0138 | 4   | 0.1575 | 30  | 116  |
| ADR      | 0.35  | 0.0138 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.35  | 0.0138 | 5   | 0.1969 | 38  | 70   |
| ADR-SV   | 0.35  | 0.0138 | 5   | 0.1969 | 38  | 82   |
| ASWR     | 0.35  | 0.0138 | 5   | 0.1969 | 38  | 120  |
| ADRL-SUS | 0.35  | 0.0138 | 5.3 | 0.2087 | 38  | 96   |
| ADRL     | 0.35  | 0.0138 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.35  | 0.0138 | 7   | 0.2756 | 38  | 86   |
| ADSL     | 0.35  | 0.0138 | 8   | 0.3150 | 40  | 110  |
| ADL      | 0.35  | 0.0138 | 10  | 0.3937 | 60  | 112  |
| ADRL     | 0.35  | 0.0138 | 10  | 0.3937 | 45  | 62   |
| ADRL-DLC | 0.35  | 0.0138 | 10  | 0.3937 | 45  | 72   |
| ADRL-SV  | 0.35  | 0.0138 | 10  | 0.3937 | 45  | 88   |
| ADLL     | 0.35  | 0.0138 | 15  | 0.5906 | 75  | 114  |
| ADR-SP   | 0.355 | 0.0140 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.36  | 0.0142 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.36  | 0.0142 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.36  | 0.0142 | 3.5 | 0.1378 | 38  | 92   |
| ADS      | 0.36  | 0.0142 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.36  | 0.0142 | 4   | 0.1575 | 30  | 116  |
| ADR      | 0.36  | 0.0142 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.36  | 0.0142 | 5   | 0.1969 | 38  | 70   |
| ADR-SV   | 0.36  | 0.0142 | 5   | 0.1969 | 38  | 82   |
| ADRL-SUS | 0.36  | 0.0142 | 5.3 | 0.2087 | 38  | 96   |
| ADRL     | 0.36  | 0.0142 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.36  | 0.0142 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.36  | 0.0142 | 10  | 0.3937 | 45  | 62   |
| ADRL-DLC | 0.36  | 0.0142 | 10  | 0.3937 | 45  | 72   |
| ADRL-SV  | 0.36  | 0.0142 | 10  | 0.3937 | 45  | 88   |
| ADR-SP   | 0.365 | 0.0144 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.37  | 0.0146 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.37  | 0.0146 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.37  | 0.0146 | 3.5 | 0.1378 | 38  | 92   |
| ADS      | 0.37  | 0.0146 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.37  | 0.0146 | 4   | 0.1575 | 30  | 116  |
| ADR      | 0.37  | 0.0146 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.37  | 0.0146 | 5   | 0.1969 | 38  | 70   |
| ADR-SV   | 0.37  | 0.0146 | 5   | 0.1969 | 38  | 82   |
| ADRL-SUS | 0.37  | 0.0146 | 5.3 | 0.2087 | 38  | 96   |
| ADRL     | 0.37  | 0.0146 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.37  | 0.0146 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.37  | 0.0146 | 10  | 0.3937 | 45  | 62   |
| ADRL-DLC | 0.37  | 0.0146 | 10  | 0.3937 | 45  | 72   |
| ADRL-SV  | 0.37  | 0.0146 | 10  | 0.3937 | 45  | 88   |
| ADR-SP   | 0.375 | 0.0148 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.38  | 0.0150 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.38  | 0.0150 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.38  | 0.0150 | 3.8 | 0.1496 | 38  | 92   |
| ADS      | 0.38  | 0.0150 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.38  | 0.0150 | 4   | 0.1575 | 30  | 116  |
| ADR      | 0.38  | 0.0150 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.38  | 0.0150 | 5   | 0.1969 | 38  | 70   |

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADR-SV   | 0.38  | 0.0150 | 5   | 0.1969 | 38  | 82   |
| ADRL-SUS | 0.38  | 0.0150 | 5.7 | 0.2244 | 38  | 96   |
| ADRL     | 0.38  | 0.0150 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.38  | 0.0150 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.38  | 0.0150 | 10  | 0.3937 | 45  | 62   |
| ADRL-DLC | 0.38  | 0.0150 | 10  | 0.3937 | 45  | 72   |
| ADRL-SV  | 0.38  | 0.0150 | 10  | 0.3937 | 45  | 88   |
| ADR-SP   | 0.385 | 0.0152 | 5   | 0.1969 | 38  | 66   |
| ADRS     | 0.39  | 0.0154 | 2.5 | 0.0984 | 38  | 52   |
| ADRS-SV  | 0.39  | 0.0154 | 2.5 | 0.0984 | 38  | 78   |
| ADR-SUS  | 0.39  | 0.0154 | 3.8 | 0.1496 | 38  | 92   |
| ADS      | 0.39  | 0.0154 | 4   | 0.1575 | 30  | 100  |
| V-ADS    | 0.39  | 0.0154 | 4   | 0.1575 | 30  | 116  |
| ADR      | 0.39  | 0.0154 | 5   | 0.1969 | 38  | 56   |
| ADR-DLC  | 0.39  | 0.0154 | 5   | 0.1969 | 38  | 70   |
| ADR-SV   | 0.39  | 0.0154 | 5   | 0.1969 | 38  | 82   |
| ADRL-SUS | 0.39  | 0.0154 | 5.7 | 0.2244 | 38  | 96   |
| ADRL     | 0.39  | 0.0154 | 7   | 0.2756 | 38  | 60   |
| ADRL-SV  | 0.39  | 0.0154 | 7   | 0.2756 | 38  | 86   |
| ADRL     | 0.39  | 0.0154 | 10  | 0.3937 | 45  | 62   |
| ADRL-DLC | 0.39  | 0.0154 | 10  | 0.3937 | 45  | 72   |
| ADRL-SV  | 0.39  | 0.0154 | 10  | 0.3937 | 45  | 88   |
| ADR-SP   | 0.395 | 0.0156 | 6   | 0.2362 | 38  | 66   |
| ADRS     | 0.40  | 0.0157 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.40  | 0.0157 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.40  | 0.0157 | 4   | 0.1575 | 38  | 92   |
| ADS      | 0.40  | 0.0157 | 5   | 0.1969 | 30  | 100  |
| V-ADS    | 0.40  | 0.0157 | 5   | 0.1969 | 30  | 116  |
| ADR      | 0.40  | 0.0157 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.40  | 0.0157 | 6   | 0.2362 | 38  | 70   |
| ADRL-SUS | 0.40  | 0.0157 | 6   | 0.2362 | 38  | 96   |
| ADR-SV   | 0.40  | 0.0157 | 6   | 0.2362 | 38  | 82   |
| ASWR     | 0.40  | 0.0157 | 6   | 0.2362 | 38  | 120  |
| ADSL     | 0.40  | 0.0157 | 8   | 0.3150 | 40  | 110  |
| ADRL     | 0.40  | 0.0157 | 9   | 0.3543 | 38  | 60   |
| ADRL-SV  | 0.40  | 0.0157 | 9   | 0.3543 | 38  | 86   |
| ADL      | 0.40  | 0.0157 | 10  | 0.3937 | 60  | 112  |
| ADRL     | 0.40  | 0.0157 | 12  | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.40  | 0.0157 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.40  | 0.0157 | 12  | 0.4724 | 45  | 88   |
| ADLL     | 0.40  | 0.0157 | 15  | 0.5906 | 75  | 114  |
| ADR-SP   | 0.405 | 0.0159 | 6   | 0.2362 | 38  | 66   |
| ADRS     | 0.41  | 0.0161 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.41  | 0.0161 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.41  | 0.0161 | 4   | 0.1575 | 38  | 92   |
| ADS      | 0.41  | 0.0161 | 5   | 0.1969 | 30  | 100  |
| V-ADS    | 0.41  | 0.0161 | 5   | 0.1969 | 30  | 116  |
| ADR      | 0.41  | 0.0161 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.41  | 0.0161 | 6   | 0.2362 | 38  | 70   |
| ADRL-SUS | 0.41  | 0.0161 | 6   | 0.2362 | 38  | 96   |
| ADR-SV   | 0.41  | 0.0161 | 6   | 0.2362 | 38  | 82   |
| ADRL     | 0.41  | 0.0161 | 9   | 0.3543 | 38  | 60   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series    | ØD    |        | FL |        | OAL | Page |
|-----------|-------|--------|----|--------|-----|------|
|           | mm    | inch   | mm | inch   | mm  |      |
| ADRS-L-SV | 0.41  | 0.0161 | 9  | 0.3543 | 38  | 86   |
| ADRL      | 0.41  | 0.0161 | 12 | 0.4724 | 45  | 62   |
| ADRL-DLC  | 0.41  | 0.0161 | 12 | 0.4724 | 45  | 72   |
| ADRL-SV   | 0.41  | 0.0161 | 12 | 0.4724 | 45  | 88   |
| ADR-SP    | 0.415 | 0.0163 | 6  | 0.2362 | 38  | 66   |
| ADRS      | 0.42  | 0.0165 | 3  | 0.1181 | 38  | 52   |
| ADRS-SV   | 0.42  | 0.0165 | 3  | 0.1181 | 38  | 78   |
| ADR-SUS   | 0.42  | 0.0165 | 4  | 0.1575 | 38  | 92   |
| ADS       | 0.42  | 0.0165 | 5  | 0.1969 | 30  | 100  |
| V-ADS     | 0.42  | 0.0165 | 5  | 0.1969 | 30  | 116  |
| ADR       | 0.42  | 0.0165 | 6  | 0.2362 | 38  | 56   |
| ADR-DLC   | 0.42  | 0.0165 | 6  | 0.2362 | 38  | 70   |
| ADRL-SUS  | 0.42  | 0.0165 | 6  | 0.2362 | 38  | 96   |
| ADR-SV    | 0.42  | 0.0165 | 6  | 0.2362 | 38  | 82   |
| ADRS-L    | 0.42  | 0.0165 | 9  | 0.3543 | 38  | 60   |
| ADRS-L-SV | 0.42  | 0.0165 | 9  | 0.3543 | 38  | 86   |
| ADRL      | 0.42  | 0.0165 | 12 | 0.4724 | 45  | 62   |
| ADRL-DLC  | 0.42  | 0.0165 | 12 | 0.4724 | 45  | 72   |
| ADRL-SV   | 0.42  | 0.0165 | 12 | 0.4724 | 45  | 88   |
| ADR-SP    | 0.425 | 0.0167 | 6  | 0.2362 | 38  | 66   |
| ADRS      | 0.43  | 0.0169 | 3  | 0.1181 | 38  | 52   |
| ADRS-SV   | 0.43  | 0.0169 | 3  | 0.1181 | 38  | 78   |
| ADR-SUS   | 0.43  | 0.0169 | 4  | 0.1575 | 38  | 92   |
| ADS       | 0.43  | 0.0169 | 5  | 0.1969 | 30  | 100  |
| V-ADS     | 0.43  | 0.0169 | 5  | 0.1969 | 30  | 116  |
| ADR       | 0.43  | 0.0169 | 6  | 0.2362 | 38  | 56   |
| ADR-DLC   | 0.43  | 0.0169 | 6  | 0.2362 | 38  | 70   |
| ADRL-SUS  | 0.43  | 0.0169 | 6  | 0.2362 | 38  | 96   |
| ADR-SV    | 0.43  | 0.0169 | 6  | 0.2362 | 38  | 82   |
| ADRS-L    | 0.43  | 0.0169 | 9  | 0.3543 | 38  | 60   |
| ADRS-L-SV | 0.43  | 0.0169 | 9  | 0.3543 | 38  | 86   |
| ADRL      | 0.43  | 0.0169 | 12 | 0.4724 | 45  | 62   |
| ADRL-DLC  | 0.43  | 0.0169 | 12 | 0.4724 | 45  | 72   |
| ADRL-SV   | 0.43  | 0.0169 | 12 | 0.4724 | 45  | 88   |
| ADR-SP    | 0.435 | 0.0171 | 6  | 0.2362 | 38  | 66   |
| ADRS      | 0.44  | 0.0173 | 3  | 0.1181 | 38  | 52   |
| ADRS-SV   | 0.44  | 0.0173 | 3  | 0.1181 | 38  | 78   |
| ADR-SUS   | 0.44  | 0.0173 | 4  | 0.1575 | 38  | 92   |
| ADS       | 0.44  | 0.0173 | 5  | 0.1969 | 30  | 100  |
| V-ADS     | 0.44  | 0.0173 | 5  | 0.1969 | 30  | 116  |
| ADR       | 0.44  | 0.0173 | 6  | 0.2362 | 38  | 56   |
| ADR-DLC   | 0.44  | 0.0173 | 6  | 0.2362 | 38  | 70   |
| ADRL-SUS  | 0.44  | 0.0173 | 6  | 0.2362 | 38  | 96   |
| ADR-SV    | 0.44  | 0.0173 | 6  | 0.2362 | 38  | 82   |
| ADRS-L    | 0.44  | 0.0173 | 9  | 0.3543 | 38  | 60   |
| ADRS-L-SV | 0.44  | 0.0173 | 9  | 0.3543 | 38  | 86   |
| ADRL      | 0.44  | 0.0173 | 12 | 0.4724 | 45  | 62   |
| ADRL-DLC  | 0.44  | 0.0173 | 12 | 0.4724 | 45  | 72   |
| ADRL-SV   | 0.44  | 0.0173 | 12 | 0.4724 | 45  | 88   |
| ADR-SP    | 0.445 | 0.0175 | 6  | 0.2362 | 38  | 66   |
| ADRS      | 0.45  | 0.0177 | 3  | 0.1181 | 38  | 52   |
| ADRS-SV   | 0.45  | 0.0177 | 3  | 0.1181 | 38  | 78   |

| Series    | ØD    |        | FL  |        | OAL | Page |
|-----------|-------|--------|-----|--------|-----|------|
|           | mm    | inch   | mm  | inch   | mm  |      |
| ADR-SUS   | 0.45  | 0.0177 | 4.5 | 0.1772 | 38  | 92   |
| ADS       | 0.45  | 0.0177 | 5   | 0.1969 | 30  | 100  |
| V-ADS     | 0.45  | 0.0177 | 5   | 0.1969 | 30  | 116  |
| ADR       | 0.45  | 0.0177 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC   | 0.45  | 0.0177 | 6   | 0.2362 | 38  | 70   |
| ADR-SV    | 0.45  | 0.0177 | 6   | 0.2362 | 38  | 82   |
| ASWR      | 0.45  | 0.0177 | 6   | 0.2362 | 38  | 120  |
| ADRL-SUS  | 0.45  | 0.0177 | 7   | 0.2756 | 38  | 96   |
| ADSL      | 0.45  | 0.0177 | 8   | 0.3150 | 40  | 110  |
| ADRS-L    | 0.45  | 0.0177 | 9   | 0.3543 | 38  | 60   |
| ADRS-L-SV | 0.45  | 0.0177 | 9   | 0.3543 | 38  | 86   |
| ADL       | 0.45  | 0.0177 | 10  | 0.3937 | 60  | 112  |
| ADRL      | 0.45  | 0.0177 | 12  | 0.4724 | 45  | 62   |
| ADRL-DLC  | 0.45  | 0.0177 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV   | 0.45  | 0.0177 | 12  | 0.4724 | 45  | 88   |
| ADLL      | 0.45  | 0.0177 | 15  | 0.5906 | 75  | 114  |
| ADR-SP    | 0.455 | 0.0179 | 6   | 0.2362 | 38  | 66   |
| ADRS      | 0.46  | 0.0181 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV   | 0.46  | 0.0181 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS   | 0.46  | 0.0181 | 4.5 | 0.1772 | 38  | 92   |
| ADS       | 0.46  | 0.0181 | 5   | 0.1969 | 30  | 100  |
| V-ADS     | 0.46  | 0.0181 | 5   | 0.1969 | 30  | 116  |
| ADR       | 0.46  | 0.0181 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC   | 0.46  | 0.0181 | 6   | 0.2362 | 38  | 70   |
| ADR-SV    | 0.46  | 0.0181 | 6   | 0.2362 | 38  | 82   |
| ADRL-SUS  | 0.46  | 0.0181 | 7   | 0.2756 | 38  | 96   |
| ADRS-L    | 0.46  | 0.0181 | 9   | 0.3543 | 38  | 60   |
| ADRS-L-SV | 0.46  | 0.0181 | 9   | 0.3543 | 38  | 86   |
| ADRL      | 0.46  | 0.0181 | 12  | 0.4724 | 45  | 62   |
| ADRL-DLC  | 0.46  | 0.0181 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV   | 0.46  | 0.0181 | 12  | 0.4724 | 45  | 88   |
| ADR-SP    | 0.465 | 0.0183 | 6   | 0.2362 | 38  | 66   |
| ADRS      | 0.47  | 0.0185 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV   | 0.47  | 0.0185 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS   | 0.47  | 0.0185 | 4.5 | 0.1772 | 38  | 92   |
| ADS       | 0.47  | 0.0185 | 5   | 0.1969 | 30  | 100  |
| V-ADS     | 0.47  | 0.0185 | 5   | 0.1969 | 30  | 116  |
| ADR       | 0.47  | 0.0185 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC   | 0.47  | 0.0185 | 6   | 0.2362 | 38  | 70   |
| ADR-SV    | 0.47  | 0.0185 | 6   | 0.2362 | 38  | 82   |
| ADRL-SUS  | 0.47  | 0.0185 | 7   | 0.2756 | 38  | 96   |
| ADRS-L    | 0.47  | 0.0185 | 9   | 0.3543 | 38  | 60   |
| ADRS-L-SV | 0.47  | 0.0185 | 9   | 0.3543 | 38  | 86   |
| ADRL      | 0.47  | 0.0185 | 12  | 0.4724 | 45  | 62   |
| ADRL-DLC  | 0.47  | 0.0185 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV   | 0.47  | 0.0185 | 12  | 0.4724 | 45  | 88   |
| ADR-SP    | 0.475 | 0.0187 | 6   | 0.2362 | 38  | 66   |
| ADRS      | 0.48  | 0.0189 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV   | 0.48  | 0.0189 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS   | 0.48  | 0.0189 | 4.5 | 0.1772 | 38  | 92   |
| ADS       | 0.48  | 0.0189 | 5   | 0.1969 | 30  | 100  |
| V-ADS     | 0.48  | 0.0189 | 5   | 0.1969 | 30  | 116  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADR      | 0.48  | 0.0189 | 6    | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.48  | 0.0189 | 6    | 0.2362 | 38  | 70   |
| ADR-SV   | 0.48  | 0.0189 | 6    | 0.2362 | 38  | 82   |
| ADRL-SUS | 0.48  | 0.0189 | 7    | 0.2756 | 38  | 96   |
| ADRSL    | 0.48  | 0.0189 | 9    | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.48  | 0.0189 | 9    | 0.3543 | 38  | 86   |
| ADRL     | 0.48  | 0.0189 | 12   | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.48  | 0.0189 | 12   | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.48  | 0.0189 | 12   | 0.4724 | 45  | 88   |
| ADR-SP   | 0.485 | 0.0191 | 6    | 0.2362 | 38  | 66   |
| ADRS     | 0.49  | 0.0193 | 3    | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.49  | 0.0193 | 3    | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.49  | 0.0193 | 4.5  | 0.1772 | 38  | 92   |
| ADS      | 0.49  | 0.0193 | 5    | 0.1969 | 30  | 100  |
| V-ADS    | 0.49  | 0.0193 | 5    | 0.1969 | 30  | 116  |
| ADR      | 0.49  | 0.0193 | 6    | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.49  | 0.0193 | 6    | 0.2362 | 38  | 70   |
| ADR-SV   | 0.49  | 0.0193 | 6    | 0.2362 | 38  | 82   |
| ADRL-SUS | 0.49  | 0.0193 | 7    | 0.2756 | 38  | 96   |
| ADRSL    | 0.49  | 0.0193 | 9    | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.49  | 0.0193 | 9    | 0.3543 | 38  | 86   |
| ADRL     | 0.49  | 0.0193 | 12   | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.49  | 0.0193 | 12   | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.49  | 0.0193 | 12   | 0.4724 | 45  | 88   |
| ADR-SP   | 0.495 | 0.0195 | 6    | 0.2362 | 38  | 66   |
| ADRS     | 0.50  | 0.0197 | 3    | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.50  | 0.0197 | 3    | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.50  | 0.0197 | 5    | 0.1969 | 38  | 92   |
| ADR      | 0.50  | 0.0197 | 6    | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.50  | 0.0197 | 6    | 0.2362 | 38  | 70   |
| ADR-SV   | 0.50  | 0.0197 | 6    | 0.2362 | 38  | 82   |
| ADS      | 0.50  | 0.0197 | 6    | 0.2362 | 30  | 100  |
| ASWR     | 0.50  | 0.0197 | 6    | 0.2362 | 38  | 120  |
| V-ADS    | 0.50  | 0.0197 | 6    | 0.2362 | 30  | 116  |
| ADRL-SUS | 0.50  | 0.0197 | 7.5  | 0.2953 | 38  | 96   |
| ADSL     | 0.50  | 0.0197 | 8    | 0.3150 | 40  | 110  |
| ADRSL    | 0.50  | 0.0197 | 9    | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.50  | 0.0197 | 9    | 0.3543 | 38  | 86   |
| ADL      | 0.50  | 0.0197 | 10   | 0.3937 | 60  | 112  |
| ADRL     | 0.50  | 0.0197 | 12   | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.50  | 0.0197 | 12   | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.50  | 0.0197 | 12   | 0.4724 | 45  | 88   |
| ADLL     | 0.50  | 0.0197 | 15   | 0.5906 | 75  | 114  |
| SXG30DN  | 0.50  | 0.0197 | 16.5 | 0.6496 | 50  | 75   |
| SXG40DN  | 0.50  | 0.0197 | 21.5 | 0.8465 | 65  | 76   |
| SXG50DN  | 0.50  | 0.0197 | 26.5 | 1.0433 | 65  | 77   |
| ADR-SP   | 0.505 | 0.0199 | 6    | 0.2362 | 38  | 66   |
| ADRS     | 0.51  | 0.0201 | 3    | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.51  | 0.0201 | 3    | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.51  | 0.0201 | 5    | 0.1969 | 38  | 92   |
| ADR      | 0.51  | 0.0201 | 6    | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.51  | 0.0201 | 6    | 0.2362 | 38  | 70   |

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADR-SV   | 0.51  | 0.0201 | 6   | 0.2362 | 38  | 82   |
| ADS      | 0.51  | 0.0201 | 6   | 0.2362 | 30  | 100  |
| V-ADS    | 0.51  | 0.0201 | 6   | 0.2362 | 30  | 116  |
| ADRL-SUS | 0.51  | 0.0201 | 7.5 | 0.2953 | 38  | 96   |
| ADRSL    | 0.51  | 0.0201 | 9   | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.51  | 0.0201 | 9   | 0.3543 | 38  | 86   |
| ADRL     | 0.51  | 0.0201 | 12  | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.51  | 0.0201 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.51  | 0.0201 | 12  | 0.4724 | 45  | 88   |
| ADR-SP   | 0.515 | 0.0203 | 6   | 0.2362 | 38  | 66   |
| ADRS     | 0.52  | 0.0205 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.52  | 0.0205 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.52  | 0.0205 | 5   | 0.1969 | 38  | 92   |
| ADR      | 0.52  | 0.0205 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.52  | 0.0205 | 6   | 0.2362 | 38  | 70   |
| ADR-SV   | 0.52  | 0.0205 | 6   | 0.2362 | 38  | 82   |
| ADS      | 0.52  | 0.0205 | 6   | 0.2362 | 30  | 100  |
| V-ADS    | 0.52  | 0.0205 | 6   | 0.2362 | 30  | 116  |
| ADRL-SUS | 0.52  | 0.0205 | 7.5 | 0.2953 | 38  | 96   |
| ADRSL    | 0.52  | 0.0205 | 9   | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.52  | 0.0205 | 9   | 0.3543 | 38  | 86   |
| ADRL     | 0.52  | 0.0205 | 12  | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.52  | 0.0205 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.52  | 0.0205 | 12  | 0.4724 | 45  | 88   |
| ADR-SP   | 0.525 | 0.0207 | 6   | 0.2362 | 38  | 66   |
| ADRS     | 0.53  | 0.0209 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.53  | 0.0209 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.53  | 0.0209 | 5   | 0.1969 | 38  | 92   |
| ADR      | 0.53  | 0.0209 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.53  | 0.0209 | 6   | 0.2362 | 38  | 70   |
| ADR-SV   | 0.53  | 0.0209 | 6   | 0.2362 | 38  | 82   |
| ADS      | 0.53  | 0.0209 | 6   | 0.2362 | 30  | 100  |
| V-ADS    | 0.53  | 0.0209 | 6   | 0.2362 | 30  | 116  |
| ADRL-SUS | 0.53  | 0.0209 | 7.5 | 0.2953 | 38  | 96   |
| ADRSL    | 0.53  | 0.0209 | 9   | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.53  | 0.0209 | 9   | 0.3543 | 38  | 86   |
| ADRL     | 0.53  | 0.0209 | 12  | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.53  | 0.0209 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.53  | 0.0209 | 12  | 0.4724 | 45  | 88   |
| ADR-SP   | 0.535 | 0.0211 | 6   | 0.2362 | 38  | 66   |
| ADRS     | 0.54  | 0.0213 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.54  | 0.0213 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.54  | 0.0213 | 5   | 0.1969 | 38  | 92   |
| ADR      | 0.54  | 0.0213 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.54  | 0.0213 | 6   | 0.2362 | 38  | 70   |
| ADR-SV   | 0.54  | 0.0213 | 6   | 0.2362 | 38  | 82   |
| ADS      | 0.54  | 0.0213 | 6   | 0.2362 | 30  | 100  |
| V-ADS    | 0.54  | 0.0213 | 6   | 0.2362 | 30  | 116  |
| ADRL-SUS | 0.54  | 0.0213 | 7.5 | 0.2953 | 38  | 96   |
| ADRSL    | 0.54  | 0.0213 | 9   | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.54  | 0.0213 | 9   | 0.3543 | 38  | 86   |
| ADRL     | 0.54  | 0.0213 | 12  | 0.4724 | 45  | 62   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADRL-DLC | 0.54  | 0.0213 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.54  | 0.0213 | 12  | 0.4724 | 45  | 88   |
| ADR-SP   | 0.545 | 0.0215 | 6   | 0.2362 | 38  | 66   |
| ADRS     | 0.55  | 0.0217 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.55  | 0.0217 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.55  | 0.0217 | 5.5 | 0.2165 | 38  | 92   |
| ADR      | 0.55  | 0.0217 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.55  | 0.0217 | 6   | 0.2362 | 38  | 70   |
| ADR-SV   | 0.55  | 0.0217 | 6   | 0.2362 | 38  | 82   |
| ADS      | 0.55  | 0.0217 | 6   | 0.2362 | 30  | 100  |
| ASWR     | 0.55  | 0.0217 | 6   | 0.2362 | 38  | 120  |
| V-ADS    | 0.55  | 0.0217 | 6   | 0.2362 | 30  | 116  |
| ADSL     | 0.55  | 0.0217 | 8   | 0.3150 | 40  | 110  |
| ADRL-SUS | 0.55  | 0.0217 | 8.5 | 0.3346 | 38  | 96   |
| ADRSL    | 0.55  | 0.0217 | 9   | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.55  | 0.0217 | 9   | 0.3543 | 38  | 86   |
| ADRL     | 0.55  | 0.0217 | 12  | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.55  | 0.0217 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.55  | 0.0217 | 12  | 0.4724 | 45  | 88   |
| ADL      | 0.55  | 0.0217 | 15  | 0.5906 | 65  | 112  |
| ADLL     | 0.55  | 0.0217 | 20  | 0.7874 | 90  | 114  |
| ADR-SP   | 0.555 | 0.0219 | 6   | 0.2362 | 38  | 66   |
| ADRS     | 0.56  | 0.0220 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.56  | 0.0220 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.56  | 0.0220 | 5.5 | 0.2165 | 38  | 92   |
| ADR      | 0.56  | 0.0220 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.56  | 0.0220 | 6   | 0.2362 | 38  | 70   |
| ADR-SV   | 0.56  | 0.0220 | 6   | 0.2362 | 38  | 82   |
| ADS      | 0.56  | 0.0220 | 6   | 0.2362 | 30  | 100  |
| V-ADS    | 0.56  | 0.0220 | 6   | 0.2362 | 30  | 116  |
| ADRL-SUS | 0.56  | 0.0220 | 8.5 | 0.3346 | 38  | 96   |
| ADRSL    | 0.56  | 0.0220 | 9   | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.56  | 0.0220 | 9   | 0.3543 | 38  | 86   |
| ADRL     | 0.56  | 0.0220 | 12  | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.56  | 0.0220 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.56  | 0.0220 | 12  | 0.4724 | 45  | 88   |
| ADR-SP   | 0.565 | 0.0222 | 6   | 0.2362 | 38  | 66   |
| ADRS     | 0.57  | 0.0224 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.57  | 0.0224 | 3   | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.57  | 0.0224 | 5.5 | 0.2165 | 38  | 92   |
| ADR      | 0.57  | 0.0224 | 6   | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.57  | 0.0224 | 6   | 0.2362 | 38  | 70   |
| ADR-SV   | 0.57  | 0.0224 | 6   | 0.2362 | 38  | 82   |
| ADS      | 0.57  | 0.0224 | 6   | 0.2362 | 30  | 100  |
| V-ADS    | 0.57  | 0.0224 | 6   | 0.2362 | 30  | 116  |
| ADRL-SUS | 0.57  | 0.0224 | 8.5 | 0.3346 | 38  | 96   |
| ADRSL    | 0.57  | 0.0224 | 9   | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.57  | 0.0224 | 9   | 0.3543 | 38  | 86   |
| ADRL     | 0.57  | 0.0224 | 12  | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.57  | 0.0224 | 12  | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.57  | 0.0224 | 12  | 0.4724 | 45  | 88   |
| ADR-SP   | 0.575 | 0.0226 | 6   | 0.2362 | 38  | 66   |

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADRS     | 0.58  | 0.0228 | 3    | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.58  | 0.0228 | 3    | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.58  | 0.0228 | 5.5  | 0.2165 | 38  | 92   |
| ADR      | 0.58  | 0.0228 | 6    | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.58  | 0.0228 | 6    | 0.2362 | 38  | 70   |
| ADR-SV   | 0.58  | 0.0228 | 6    | 0.2362 | 38  | 82   |
| ADS      | 0.58  | 0.0228 | 6    | 0.2362 | 30  | 100  |
| V-ADS    | 0.58  | 0.0228 | 6    | 0.2362 | 30  | 116  |
| ADRL-SUS | 0.58  | 0.0228 | 8.5  | 0.3346 | 38  | 96   |
| ADRSL    | 0.58  | 0.0228 | 9    | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.58  | 0.0228 | 9    | 0.3543 | 38  | 86   |
| ADRL     | 0.58  | 0.0228 | 12   | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.58  | 0.0228 | 12   | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.58  | 0.0228 | 12   | 0.4724 | 45  | 88   |
| ADR-SP   | 0.585 | 0.0230 | 6    | 0.2362 | 38  | 66   |
| ADRS     | 0.59  | 0.0232 | 3    | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.59  | 0.0232 | 3    | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.59  | 0.0232 | 5.5  | 0.2165 | 38  | 92   |
| ADR      | 0.59  | 0.0232 | 6    | 0.2362 | 38  | 56   |
| ADR-DLC  | 0.59  | 0.0232 | 6    | 0.2362 | 38  | 70   |
| ADR-SV   | 0.59  | 0.0232 | 6    | 0.2362 | 38  | 82   |
| ADS      | 0.59  | 0.0232 | 6    | 0.2362 | 30  | 100  |
| V-ADS    | 0.59  | 0.0232 | 6    | 0.2362 | 30  | 116  |
| ADRL-SUS | 0.59  | 0.0232 | 8.5  | 0.3346 | 38  | 96   |
| ADRSL    | 0.59  | 0.0232 | 9    | 0.3543 | 38  | 60   |
| ADRSL-SV | 0.59  | 0.0232 | 9    | 0.3543 | 38  | 86   |
| ADRL     | 0.59  | 0.0232 | 12   | 0.4724 | 45  | 62   |
| ADRL-DLC | 0.59  | 0.0232 | 12   | 0.4724 | 45  | 72   |
| ADRL-SV  | 0.59  | 0.0232 | 12   | 0.4724 | 45  | 88   |
| ADR-SP   | 0.595 | 0.0234 | 7    | 0.2756 | 38  | 66   |
| ADRS     | 0.60  | 0.0236 | 3    | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.60  | 0.0236 | 3    | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.60  | 0.0236 | 6    | 0.2362 | 38  | 92   |
| ADS      | 0.60  | 0.0236 | 6    | 0.2362 | 30  | 100  |
| V-ADS    | 0.60  | 0.0236 | 6    | 0.2362 | 30  | 116  |
| ADR      | 0.60  | 0.0236 | 7    | 0.2756 | 38  | 56   |
| ADR-DLC  | 0.60  | 0.0236 | 7    | 0.2756 | 38  | 70   |
| ADR-SV   | 0.60  | 0.0236 | 7    | 0.2756 | 38  | 82   |
| ASWR     | 0.60  | 0.0236 | 7    | 0.2756 | 38  | 120  |
| ADSL     | 0.60  | 0.0236 | 8    | 0.3150 | 40  | 110  |
| ADRL-SUS | 0.60  | 0.0236 | 9    | 0.3543 | 38  | 96   |
| ADRSL    | 0.60  | 0.0236 | 11   | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.60  | 0.0236 | 11   | 0.4331 | 38  | 86   |
| ADL      | 0.60  | 0.0236 | 15   | 0.5906 | 65  | 112  |
| ADRL     | 0.60  | 0.0236 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.60  | 0.0236 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.60  | 0.0236 | 15   | 0.5906 | 45  | 88   |
| SXG30DN  | 0.60  | 0.0236 | 19.8 | 0.7795 | 50  | 75   |
| ADLL     | 0.60  | 0.0236 | 20   | 0.7874 | 90  | 114  |
| SXG40DN  | 0.60  | 0.0236 | 25.8 | 1.0157 | 65  | 76   |
| SXG50DN  | 0.60  | 0.0236 | 31.8 | 1.2520 | 80  | 77   |
| ADR-SP   | 0.605 | 0.0238 | 7    | 0.2756 | 38  | 66   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADRS     | 0.61  | 0.0240 | 3  | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.61  | 0.0240 | 3  | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.61  | 0.0240 | 6  | 0.2362 | 38  | 92   |
| ADS      | 0.61  | 0.0240 | 6  | 0.2362 | 30  | 100  |
| V-ADS    | 0.61  | 0.0240 | 6  | 0.2362 | 30  | 116  |
| ADR      | 0.61  | 0.0240 | 7  | 0.2756 | 38  | 56   |
| ADR-DLC  | 0.61  | 0.0240 | 7  | 0.2756 | 38  | 70   |
| ADR-SV   | 0.61  | 0.0240 | 7  | 0.2756 | 38  | 82   |
| ADRL-SUS | 0.61  | 0.0240 | 9  | 0.3543 | 38  | 96   |
| ADRSL    | 0.61  | 0.0240 | 11 | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.61  | 0.0240 | 11 | 0.4331 | 38  | 86   |
| ADRL     | 0.61  | 0.0240 | 15 | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.61  | 0.0240 | 15 | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.61  | 0.0240 | 15 | 0.5906 | 45  | 88   |
| ADR-SP   | 0.615 | 0.0242 | 7  | 0.2756 | 38  | 66   |
| ADRS     | 0.62  | 0.0244 | 3  | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.62  | 0.0244 | 3  | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.62  | 0.0244 | 6  | 0.2362 | 38  | 92   |
| ADS      | 0.62  | 0.0244 | 6  | 0.2362 | 30  | 100  |
| V-ADS    | 0.62  | 0.0244 | 6  | 0.2362 | 30  | 116  |
| ADR      | 0.62  | 0.0244 | 7  | 0.2756 | 38  | 56   |
| ADR-DLC  | 0.62  | 0.0244 | 7  | 0.2756 | 38  | 70   |
| ADR-SV   | 0.62  | 0.0244 | 7  | 0.2756 | 38  | 82   |
| ADRL-SUS | 0.62  | 0.0244 | 9  | 0.3543 | 38  | 96   |
| ADRSL    | 0.62  | 0.0244 | 11 | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.62  | 0.0244 | 11 | 0.4331 | 38  | 86   |
| ADRL     | 0.62  | 0.0244 | 15 | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.62  | 0.0244 | 15 | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.62  | 0.0244 | 15 | 0.5906 | 45  | 88   |
| ADR-SP   | 0.625 | 0.0246 | 7  | 0.2756 | 38  | 66   |
| ADRS     | 0.63  | 0.0248 | 3  | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.63  | 0.0248 | 3  | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.63  | 0.0248 | 6  | 0.2362 | 38  | 92   |
| ADS      | 0.63  | 0.0248 | 6  | 0.2362 | 30  | 100  |
| V-ADS    | 0.63  | 0.0248 | 6  | 0.2362 | 30  | 116  |
| ADR      | 0.63  | 0.0248 | 7  | 0.2756 | 38  | 56   |
| ADR-DLC  | 0.63  | 0.0248 | 7  | 0.2756 | 38  | 70   |
| ADR-SV   | 0.63  | 0.0248 | 7  | 0.2756 | 38  | 82   |
| ADRL-SUS | 0.63  | 0.0248 | 9  | 0.3543 | 38  | 96   |
| ADRSL    | 0.63  | 0.0248 | 11 | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.63  | 0.0248 | 11 | 0.4331 | 38  | 86   |
| ADRL     | 0.63  | 0.0248 | 15 | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.63  | 0.0248 | 15 | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.63  | 0.0248 | 15 | 0.5906 | 45  | 88   |
| ADR-SP   | 0.635 | 0.0250 | 7  | 0.2756 | 38  | 66   |
| ADRS     | 0.64  | 0.0252 | 3  | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.64  | 0.0252 | 3  | 0.1181 | 38  | 78   |
| ADR-SUS  | 0.64  | 0.0252 | 6  | 0.2362 | 38  | 92   |
| ADS      | 0.64  | 0.0252 | 6  | 0.2362 | 30  | 100  |
| V-ADS    | 0.64  | 0.0252 | 6  | 0.2362 | 30  | 116  |
| ADR      | 0.64  | 0.0252 | 7  | 0.2756 | 38  | 56   |
| ADR-DLC  | 0.64  | 0.0252 | 7  | 0.2756 | 38  | 70   |

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADR-SV   | 0.64  | 0.0252 | 7   | 0.2756 | 38  | 82   |
| ADRL-SUS | 0.64  | 0.0252 | 9   | 0.3543 | 38  | 96   |
| ADRSL    | 0.64  | 0.0252 | 11  | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.64  | 0.0252 | 11  | 0.4331 | 38  | 86   |
| ADRL     | 0.64  | 0.0252 | 15  | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.64  | 0.0252 | 15  | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.64  | 0.0252 | 15  | 0.5906 | 45  | 88   |
| ADR-SP   | 0.645 | 0.0254 | 7   | 0.2756 | 38  | 66   |
| ADRS     | 0.65  | 0.0256 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.65  | 0.0256 | 3   | 0.1181 | 38  | 78   |
| ADS      | 0.65  | 0.0256 | 6   | 0.2362 | 30  | 100  |
| V-ADS    | 0.65  | 0.0256 | 6   | 0.2362 | 30  | 116  |
| ADR-SUS  | 0.65  | 0.0256 | 6.5 | 0.2559 | 38  | 92   |
| ADR      | 0.65  | 0.0256 | 7   | 0.2756 | 38  | 56   |
| ADR-DLC  | 0.65  | 0.0256 | 7   | 0.2756 | 38  | 70   |
| ADR-SV   | 0.65  | 0.0256 | 7   | 0.2756 | 38  | 82   |
| ASWR     | 0.65  | 0.0256 | 7   | 0.2756 | 38  | 120  |
| ADSL     | 0.65  | 0.0256 | 8   | 0.3150 | 40  | 110  |
| ADRL-SUS | 0.65  | 0.0256 | 10  | 0.3937 | 38  | 96   |
| ADRSL    | 0.65  | 0.0256 | 11  | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.65  | 0.0256 | 11  | 0.4331 | 38  | 86   |
| ADL      | 0.65  | 0.0256 | 15  | 0.5906 | 65  | 112  |
| ADRL     | 0.65  | 0.0256 | 15  | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.65  | 0.0256 | 15  | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.65  | 0.0256 | 15  | 0.5906 | 45  | 88   |
| ADLL     | 0.65  | 0.0256 | 20  | 0.7874 | 90  | 114  |
| ADR-SP   | 0.655 | 0.0258 | 7   | 0.2756 | 38  | 66   |
| ADRS     | 0.66  | 0.0260 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.66  | 0.0260 | 3   | 0.1181 | 38  | 78   |
| ADS      | 0.66  | 0.0260 | 6   | 0.2362 | 30  | 100  |
| V-ADS    | 0.66  | 0.0260 | 6   | 0.2362 | 30  | 116  |
| ADR-SUS  | 0.66  | 0.0260 | 6.5 | 0.2559 | 38  | 92   |
| ADR      | 0.66  | 0.0260 | 7   | 0.2756 | 38  | 56   |
| ADR-DLC  | 0.66  | 0.0260 | 7   | 0.2756 | 38  | 70   |
| ADR-SV   | 0.66  | 0.0260 | 7   | 0.2756 | 38  | 82   |
| ADRL-SUS | 0.66  | 0.0260 | 10  | 0.3937 | 38  | 96   |
| ADRSL    | 0.66  | 0.0260 | 11  | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.66  | 0.0260 | 11  | 0.4331 | 38  | 86   |
| ADRL     | 0.66  | 0.0260 | 15  | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.66  | 0.0260 | 15  | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.66  | 0.0260 | 15  | 0.5906 | 45  | 88   |
| ADR-SP   | 0.665 | 0.0262 | 7   | 0.2756 | 38  | 66   |
| ADRS     | 0.67  | 0.0264 | 3   | 0.1181 | 38  | 52   |
| ADRS-SV  | 0.67  | 0.0264 | 3   | 0.1181 | 38  | 78   |
| ADS      | 0.67  | 0.0264 | 6   | 0.2362 | 30  | 100  |
| V-ADS    | 0.67  | 0.0264 | 6   | 0.2362 | 30  | 116  |
| ADR-SUS  | 0.67  | 0.0264 | 6.5 | 0.2559 | 38  | 92   |
| ADR      | 0.67  | 0.0264 | 7   | 0.2756 | 38  | 56   |
| ADR-DLC  | 0.67  | 0.0264 | 7   | 0.2756 | 38  | 70   |
| ADR-SV   | 0.67  | 0.0264 | 7   | 0.2756 | 38  | 82   |
| ADRL-SUS | 0.67  | 0.0264 | 10  | 0.3937 | 38  | 96   |
| ADRSL    | 0.67  | 0.0264 | 11  | 0.4331 | 38  | 60   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series    | ØD    |        | FL   |        | OAL | Page |
|-----------|-------|--------|------|--------|-----|------|
|           | mm    | inch   | mm   | inch   | mm  |      |
| ADRS-L-SV | 0.67  | 0.0264 | 11   | 0.4331 | 38  | 86   |
| ADRL      | 0.67  | 0.0264 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.67  | 0.0264 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.67  | 0.0264 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.675 | 0.0266 | 7    | 0.2756 | 38  | 66   |
| ADRS      | 0.68  | 0.0268 | 3    | 0.1181 | 38  | 52   |
| ADRS-SV   | 0.68  | 0.0268 | 3    | 0.1181 | 38  | 78   |
| ADS       | 0.68  | 0.0268 | 6    | 0.2362 | 30  | 100  |
| V-ADS     | 0.68  | 0.0268 | 6    | 0.2362 | 30  | 116  |
| ADR-SUS   | 0.68  | 0.0268 | 6.5  | 0.2559 | 38  | 92   |
| ADR       | 0.68  | 0.0268 | 7    | 0.2756 | 38  | 56   |
| ADR-DLC   | 0.68  | 0.0268 | 7    | 0.2756 | 38  | 70   |
| ADR-SV    | 0.68  | 0.0268 | 7    | 0.2756 | 38  | 82   |
| ADRL-SUS  | 0.68  | 0.0268 | 10   | 0.3937 | 38  | 96   |
| ADRS-L    | 0.68  | 0.0268 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.68  | 0.0268 | 11   | 0.4331 | 38  | 86   |
| ADRL      | 0.68  | 0.0268 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.68  | 0.0268 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.68  | 0.0268 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.685 | 0.0270 | 7    | 0.2756 | 38  | 66   |
| ADRS      | 0.69  | 0.0272 | 3    | 0.1181 | 38  | 52   |
| ADRS-SV   | 0.69  | 0.0272 | 3    | 0.1181 | 38  | 78   |
| ADS       | 0.69  | 0.0272 | 6    | 0.2362 | 30  | 100  |
| V-ADS     | 0.69  | 0.0272 | 6    | 0.2362 | 30  | 116  |
| ADR-SUS   | 0.69  | 0.0272 | 6.5  | 0.2559 | 38  | 92   |
| ADR       | 0.69  | 0.0272 | 7    | 0.2756 | 38  | 56   |
| ADR-DLC   | 0.69  | 0.0272 | 7    | 0.2756 | 38  | 70   |
| ADR-SV    | 0.69  | 0.0272 | 7    | 0.2756 | 38  | 82   |
| ADRL-SUS  | 0.69  | 0.0272 | 10   | 0.3937 | 38  | 96   |
| ADRS-L    | 0.69  | 0.0272 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.69  | 0.0272 | 11   | 0.4331 | 38  | 86   |
| ADRL      | 0.69  | 0.0272 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.69  | 0.0272 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.69  | 0.0272 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.695 | 0.0274 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.70  | 0.0276 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.70  | 0.0276 | 4    | 0.1575 | 38  | 78   |
| ADR-SUS   | 0.70  | 0.0276 | 7    | 0.2756 | 38  | 92   |
| ADR       | 0.70  | 0.0276 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.70  | 0.0276 | 8    | 0.3150 | 38  | 70   |
| ADR-SV    | 0.70  | 0.0276 | 8    | 0.3150 | 38  | 82   |
| ASWR      | 0.70  | 0.0276 | 8    | 0.3150 | 38  | 120  |
| ADRL-SUS  | 0.70  | 0.0276 | 10.5 | 0.4134 | 38  | 96   |
| ADRS-L    | 0.70  | 0.0276 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.70  | 0.0276 | 11   | 0.4331 | 38  | 86   |
| ADS       | 0.70  | 0.0276 | 12   | 0.4724 | 40  | 100  |
| V-ADS     | 0.70  | 0.0276 | 12   | 0.4724 | 40  | 116  |
| ADRL      | 0.70  | 0.0276 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.70  | 0.0276 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.70  | 0.0276 | 15   | 0.5906 | 45  | 88   |
| ADSL      | 0.70  | 0.0276 | 15   | 0.5906 | 50  | 110  |

| Series    | ØD    |        | FL   |        | OAL | Page |
|-----------|-------|--------|------|--------|-----|------|
|           | mm    | inch   | mm   | inch   | mm  |      |
| ADLL      | 0.70  | 0.0276 | 20   | 0.7874 | 90  | 114  |
| SXG30DN   | 0.70  | 0.0276 | 23.1 | 0.9094 | 65  | 75   |
| SXG40DN   | 0.70  | 0.0276 | 30.1 | 1.1850 | 65  | 76   |
| SXG50DN   | 0.70  | 0.0276 | 37.1 | 1.4606 | 80  | 77   |
| ADR-SP    | 0.705 | 0.0278 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.71  | 0.0280 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.71  | 0.0280 | 4    | 0.1575 | 38  | 78   |
| ADR-SUS   | 0.71  | 0.0280 | 7    | 0.2756 | 38  | 92   |
| ADR       | 0.71  | 0.0280 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.71  | 0.0280 | 8    | 0.3150 | 38  | 70   |
| ADR-SV    | 0.71  | 0.0280 | 8    | 0.3150 | 38  | 82   |
| ADRL-SUS  | 0.71  | 0.0280 | 10.5 | 0.4134 | 38  | 96   |
| ADRS-L    | 0.71  | 0.0280 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.71  | 0.0280 | 11   | 0.4331 | 38  | 86   |
| ADS       | 0.71  | 0.0280 | 12   | 0.4724 | 40  | 100  |
| V-ADS     | 0.71  | 0.0280 | 12   | 0.4724 | 40  | 116  |
| ADRL      | 0.71  | 0.0280 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.71  | 0.0280 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.71  | 0.0280 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.715 | 0.0281 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.72  | 0.0283 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.72  | 0.0283 | 4    | 0.1575 | 38  | 78   |
| ADR-SUS   | 0.72  | 0.0283 | 7    | 0.2756 | 38  | 92   |
| ADR       | 0.72  | 0.0283 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.72  | 0.0283 | 8    | 0.3150 | 38  | 70   |
| ADR-SV    | 0.72  | 0.0283 | 8    | 0.3150 | 38  | 82   |
| ADRL-SUS  | 0.72  | 0.0283 | 10.5 | 0.4134 | 38  | 96   |
| ADRS-L    | 0.72  | 0.0283 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.72  | 0.0283 | 11   | 0.4331 | 38  | 86   |
| ADS       | 0.72  | 0.0283 | 12   | 0.4724 | 40  | 100  |
| V-ADS     | 0.72  | 0.0283 | 12   | 0.4724 | 40  | 116  |
| ADRL      | 0.72  | 0.0283 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.72  | 0.0283 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.72  | 0.0283 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.725 | 0.0285 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.73  | 0.0287 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.73  | 0.0287 | 4    | 0.1575 | 38  | 78   |
| ADR-SUS   | 0.73  | 0.0287 | 7    | 0.2756 | 38  | 92   |
| ADR       | 0.73  | 0.0287 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.73  | 0.0287 | 8    | 0.3150 | 38  | 70   |
| ADR-SV    | 0.73  | 0.0287 | 8    | 0.3150 | 38  | 82   |
| ADRL-SUS  | 0.73  | 0.0287 | 10.5 | 0.4134 | 38  | 96   |
| ADRS-L    | 0.73  | 0.0287 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.73  | 0.0287 | 11   | 0.4331 | 38  | 86   |
| ADS       | 0.73  | 0.0287 | 12   | 0.4724 | 40  | 100  |
| V-ADS     | 0.73  | 0.0287 | 12   | 0.4724 | 40  | 116  |
| ADRL      | 0.73  | 0.0287 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.73  | 0.0287 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.73  | 0.0287 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.735 | 0.0289 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.74  | 0.0291 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.74  | 0.0291 | 4    | 0.1575 | 38  | 78   |



# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADR-SUS  | 0.74  | 0.0291 | 7    | 0.2756 | 38  | 92   |
| ADR      | 0.74  | 0.0291 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.74  | 0.0291 | 8    | 0.3150 | 38  | 70   |
| ADR-SV   | 0.74  | 0.0291 | 8    | 0.3150 | 38  | 82   |
| ADRL-SUS | 0.74  | 0.0291 | 10.5 | 0.4134 | 38  | 96   |
| ADRL     | 0.74  | 0.0291 | 11   | 0.4331 | 38  | 60   |
| ADRL-SV  | 0.74  | 0.0291 | 11   | 0.4331 | 38  | 86   |
| ADS      | 0.74  | 0.0291 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.74  | 0.0291 | 12   | 0.4724 | 40  | 116  |
| ADRL     | 0.74  | 0.0291 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.74  | 0.0291 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.74  | 0.0291 | 15   | 0.5906 | 45  | 88   |
| ADR-SP   | 0.745 | 0.0293 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.75  | 0.0295 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.75  | 0.0295 | 4    | 0.1575 | 38  | 78   |
| ADR-SUS  | 0.75  | 0.0295 | 7.5  | 0.2953 | 38  | 92   |
| ADR      | 0.75  | 0.0295 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.75  | 0.0295 | 8    | 0.3150 | 38  | 70   |
| ADR-SV   | 0.75  | 0.0295 | 8    | 0.3150 | 38  | 82   |
| ASWR     | 0.75  | 0.0295 | 8    | 0.3150 | 38  | 120  |
| ADRL     | 0.75  | 0.0295 | 11   | 0.4331 | 38  | 60   |
| ADRL-SV  | 0.75  | 0.0295 | 11   | 0.4331 | 38  | 86   |
| ADRL-SUS | 0.75  | 0.0295 | 11.5 | 0.4528 | 38  | 96   |
| ADS      | 0.75  | 0.0295 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.75  | 0.0295 | 12   | 0.4724 | 40  | 116  |
| ADL      | 0.75  | 0.0295 | 15   | 0.5906 | 65  | 112  |
| ADRL     | 0.75  | 0.0295 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.75  | 0.0295 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.75  | 0.0295 | 15   | 0.5906 | 45  | 88   |
| ADSL     | 0.75  | 0.0295 | 15   | 0.5906 | 50  | 110  |
| ADLL     | 0.75  | 0.0295 | 20   | 0.7874 | 90  | 114  |
| ADR-SP   | 0.755 | 0.0297 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.76  | 0.0299 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.76  | 0.0299 | 4    | 0.1575 | 38  | 78   |
| ADR-SUS  | 0.76  | 0.0299 | 7.5  | 0.2953 | 38  | 92   |
| ADR      | 0.76  | 0.0299 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.76  | 0.0299 | 8    | 0.3150 | 38  | 70   |
| ADR-SV   | 0.76  | 0.0299 | 8    | 0.3150 | 38  | 82   |
| ADRL     | 0.76  | 0.0299 | 11   | 0.4331 | 38  | 60   |
| ADRL-SV  | 0.76  | 0.0299 | 11   | 0.4331 | 38  | 86   |
| ADRL-SUS | 0.76  | 0.0299 | 11.5 | 0.4528 | 38  | 96   |
| ADS      | 0.76  | 0.0299 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.76  | 0.0299 | 12   | 0.4724 | 40  | 116  |
| ADRL     | 0.76  | 0.0299 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.76  | 0.0299 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.76  | 0.0299 | 15   | 0.5906 | 45  | 88   |
| ADR-SP   | 0.765 | 0.0301 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.77  | 0.0303 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.77  | 0.0303 | 4    | 0.1575 | 38  | 78   |
| ADR-SUS  | 0.77  | 0.0303 | 7.5  | 0.2953 | 38  | 92   |
| ADR      | 0.77  | 0.0303 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.77  | 0.0303 | 8    | 0.3150 | 38  | 70   |

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADR-SV   | 0.77  | 0.0303 | 8    | 0.3150 | 38  | 82   |
| ADRL     | 0.77  | 0.0303 | 11   | 0.4331 | 38  | 60   |
| ADRL-SV  | 0.77  | 0.0303 | 11   | 0.4331 | 38  | 86   |
| ADRL-SUS | 0.77  | 0.0303 | 11.5 | 0.4528 | 38  | 96   |
| ADS      | 0.77  | 0.0303 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.77  | 0.0303 | 12   | 0.4724 | 40  | 116  |
| ADRL     | 0.77  | 0.0303 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.77  | 0.0303 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.77  | 0.0303 | 15   | 0.5906 | 45  | 88   |
| ADR-SP   | 0.775 | 0.0305 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.78  | 0.0307 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.78  | 0.0307 | 4    | 0.1575 | 38  | 78   |
| ADR-SUS  | 0.78  | 0.0307 | 7.5  | 0.2953 | 38  | 92   |
| ADR      | 0.78  | 0.0307 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.78  | 0.0307 | 8    | 0.3150 | 38  | 70   |
| ADR-SV   | 0.78  | 0.0307 | 8    | 0.3150 | 38  | 82   |
| ADRL     | 0.78  | 0.0307 | 11   | 0.4331 | 38  | 60   |
| ADRL-SV  | 0.78  | 0.0307 | 11   | 0.4331 | 38  | 86   |
| ADRL-SUS | 0.78  | 0.0307 | 11.5 | 0.4528 | 38  | 96   |
| ADS      | 0.78  | 0.0307 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.78  | 0.0307 | 12   | 0.4724 | 40  | 116  |
| ADRL     | 0.78  | 0.0307 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.78  | 0.0307 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.78  | 0.0307 | 15   | 0.5906 | 45  | 88   |
| ADR-SP   | 0.785 | 0.0309 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.79  | 0.0311 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.79  | 0.0311 | 4    | 0.1575 | 38  | 78   |
| ADR-SUS  | 0.79  | 0.0311 | 7.5  | 0.2953 | 38  | 92   |
| ADR      | 0.79  | 0.0311 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.79  | 0.0311 | 8    | 0.3150 | 38  | 70   |
| ADR-SV   | 0.79  | 0.0311 | 8    | 0.3150 | 38  | 82   |
| ADRL     | 0.79  | 0.0311 | 11   | 0.4331 | 38  | 60   |
| ADRL-SV  | 0.79  | 0.0311 | 11   | 0.4331 | 38  | 86   |
| ADRL-SUS | 0.79  | 0.0311 | 11.5 | 0.4528 | 38  | 96   |
| ADS      | 0.79  | 0.0311 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.79  | 0.0311 | 12   | 0.4724 | 40  | 116  |
| ADRL     | 0.79  | 0.0311 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.79  | 0.0311 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.79  | 0.0311 | 15   | 0.5906 | 45  | 88   |
| ADR-SP   | 0.795 | 0.0313 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.80  | 0.0315 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.80  | 0.0315 | 4    | 0.1575 | 38  | 78   |
| ADR      | 0.80  | 0.0315 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.80  | 0.0315 | 8    | 0.3150 | 38  | 70   |
| ADR-SUS  | 0.80  | 0.0315 | 8    | 0.3150 | 38  | 92   |
| ADR-SV   | 0.80  | 0.0315 | 8    | 0.3150 | 38  | 82   |
| ASWR     | 0.80  | 0.0315 | 8    | 0.3150 | 38  | 120  |
| ADRL     | 0.80  | 0.0315 | 11   | 0.4331 | 38  | 60   |
| ADRL-SV  | 0.80  | 0.0315 | 11   | 0.4331 | 38  | 86   |
| ADS      | 0.80  | 0.0315 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.80  | 0.0315 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS | 0.80  | 0.0315 | 12.5 | 0.4921 | 45  | 96   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series    | ØD    |        | FL   |        | OAL | Page |
|-----------|-------|--------|------|--------|-----|------|
|           | mm    | inch   | mm   | inch   | mm  |      |
| ADRL      | 0.80  | 0.0315 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.80  | 0.0315 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.80  | 0.0315 | 15   | 0.5906 | 45  | 88   |
| ADSL      | 0.80  | 0.0315 | 15   | 0.5906 | 50  | 110  |
| ADL       | 0.80  | 0.0315 | 20   | 0.7874 | 75  | 112  |
| ADLL      | 0.80  | 0.0315 | 25   | 0.9843 | 100 | 114  |
| SXG30DN   | 0.80  | 0.0315 | 26.4 | 1.0394 | 65  | 75   |
| SXG40DN   | 0.80  | 0.0315 | 34.4 | 1.3543 | 65  | 76   |
| SXG50DN   | 0.80  | 0.0315 | 42.4 | 1.6693 | 80  | 77   |
| ADR-SP    | 0.805 | 0.0317 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.81  | 0.0319 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.81  | 0.0319 | 4    | 0.1575 | 38  | 78   |
| ADR       | 0.81  | 0.0319 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.81  | 0.0319 | 8    | 0.3150 | 38  | 70   |
| ADR-SUS   | 0.81  | 0.0319 | 8    | 0.3150 | 38  | 92   |
| ADR-SV    | 0.81  | 0.0319 | 8    | 0.3150 | 38  | 82   |
| ADRS-L    | 0.81  | 0.0319 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.81  | 0.0319 | 11   | 0.4331 | 38  | 86   |
| ADS       | 0.81  | 0.0319 | 12   | 0.4724 | 40  | 100  |
| V-ADS     | 0.81  | 0.0319 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.81  | 0.0319 | 12.5 | 0.4921 | 45  | 96   |
| ADRL      | 0.81  | 0.0319 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.81  | 0.0319 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.81  | 0.0319 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.815 | 0.0321 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.82  | 0.0323 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.82  | 0.0323 | 4    | 0.1575 | 38  | 78   |
| ADR       | 0.82  | 0.0323 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.82  | 0.0323 | 8    | 0.3150 | 38  | 70   |
| ADR-SUS   | 0.82  | 0.0323 | 8    | 0.3150 | 38  | 92   |
| ADR-SV    | 0.82  | 0.0323 | 8    | 0.3150 | 38  | 82   |
| ADRS-L    | 0.82  | 0.0323 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.82  | 0.0323 | 11   | 0.4331 | 38  | 86   |
| ADS       | 0.82  | 0.0323 | 12   | 0.4724 | 40  | 100  |
| V-ADS     | 0.82  | 0.0323 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.82  | 0.0323 | 12.5 | 0.4921 | 45  | 96   |
| ADRL      | 0.82  | 0.0323 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.82  | 0.0323 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.82  | 0.0323 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.825 | 0.0325 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.83  | 0.0327 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.83  | 0.0327 | 4    | 0.1575 | 38  | 78   |
| ADR       | 0.83  | 0.0327 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.83  | 0.0327 | 8    | 0.3150 | 38  | 70   |
| ADR-SUS   | 0.83  | 0.0327 | 8    | 0.3150 | 38  | 92   |
| ADR-SV    | 0.83  | 0.0327 | 8    | 0.3150 | 38  | 82   |
| ADRS-L    | 0.83  | 0.0327 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.83  | 0.0327 | 11   | 0.4331 | 38  | 86   |
| ADS       | 0.83  | 0.0327 | 12   | 0.4724 | 40  | 100  |
| V-ADS     | 0.83  | 0.0327 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.83  | 0.0327 | 12.5 | 0.4921 | 45  | 96   |
| ADRL      | 0.83  | 0.0327 | 15   | 0.5906 | 45  | 62   |

| Series    | ØD    |        | FL   |        | OAL | Page |
|-----------|-------|--------|------|--------|-----|------|
|           | mm    | inch   | mm   | inch   | mm  |      |
| ADRL-DLC  | 0.83  | 0.0327 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.83  | 0.0327 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.835 | 0.0329 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.84  | 0.0331 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.84  | 0.0331 | 4    | 0.1575 | 38  | 78   |
| ADR       | 0.84  | 0.0331 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.84  | 0.0331 | 8    | 0.3150 | 38  | 70   |
| ADR-SUS   | 0.84  | 0.0331 | 8    | 0.3150 | 38  | 92   |
| ADR-SV    | 0.84  | 0.0331 | 8    | 0.3150 | 38  | 82   |
| ADRS-L    | 0.84  | 0.0331 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.84  | 0.0331 | 11   | 0.4331 | 38  | 86   |
| ADS       | 0.84  | 0.0331 | 12   | 0.4724 | 40  | 100  |
| V-ADS     | 0.84  | 0.0331 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.84  | 0.0331 | 12.5 | 0.4921 | 45  | 96   |
| ADRL      | 0.84  | 0.0331 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.84  | 0.0331 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.84  | 0.0331 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.845 | 0.0333 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.85  | 0.0335 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.85  | 0.0335 | 4    | 0.1575 | 38  | 78   |
| ADR       | 0.85  | 0.0335 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.85  | 0.0335 | 8    | 0.3150 | 38  | 70   |
| ADR-SUS   | 0.85  | 0.0335 | 8    | 0.3150 | 38  | 92   |
| ADR-SV    | 0.85  | 0.0335 | 8    | 0.3150 | 38  | 82   |
| ASWR      | 0.85  | 0.0335 | 8    | 0.3150 | 38  | 120  |
| ADRS-L    | 0.85  | 0.0335 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.85  | 0.0335 | 11   | 0.4331 | 38  | 86   |
| ADS       | 0.85  | 0.0335 | 12   | 0.4724 | 40  | 100  |
| V-ADS     | 0.85  | 0.0335 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.85  | 0.0335 | 12.5 | 0.4921 | 45  | 96   |
| ADRL      | 0.85  | 0.0335 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.85  | 0.0335 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.85  | 0.0335 | 15   | 0.5906 | 45  | 88   |
| ADSL      | 0.85  | 0.0335 | 15   | 0.5906 | 50  | 110  |
| ADL       | 0.85  | 0.0335 | 20   | 0.7874 | 75  | 112  |
| ADLL      | 0.85  | 0.0335 | 25   | 0.9843 | 100 | 114  |
| ADR-SP    | 0.855 | 0.0337 | 8    | 0.3150 | 38  | 66   |
| ADRS      | 0.86  | 0.0339 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.86  | 0.0339 | 4    | 0.1575 | 38  | 78   |
| ADR       | 0.86  | 0.0339 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.86  | 0.0339 | 8    | 0.3150 | 38  | 70   |
| ADR-SUS   | 0.86  | 0.0339 | 8    | 0.3150 | 38  | 92   |
| ADR-SV    | 0.86  | 0.0339 | 8    | 0.3150 | 38  | 82   |
| ADRS-L    | 0.86  | 0.0339 | 11   | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.86  | 0.0339 | 11   | 0.4331 | 38  | 86   |
| ADS       | 0.86  | 0.0339 | 12   | 0.4724 | 40  | 100  |
| V-ADS     | 0.86  | 0.0339 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.86  | 0.0339 | 12.5 | 0.4921 | 45  | 96   |
| ADRL      | 0.86  | 0.0339 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.86  | 0.0339 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.86  | 0.0339 | 15   | 0.5906 | 45  | 88   |
| ADR-SP    | 0.865 | 0.0341 | 8    | 0.3150 | 38  | 66   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADRS     | 0.87  | 0.0343 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.87  | 0.0343 | 4    | 0.1575 | 38  | 78   |
| ADR      | 0.87  | 0.0343 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.87  | 0.0343 | 8    | 0.3150 | 38  | 70   |
| ADR-SUS  | 0.87  | 0.0343 | 8    | 0.3150 | 38  | 92   |
| ADR-SV   | 0.87  | 0.0343 | 8    | 0.3150 | 38  | 82   |
| ADRSL    | 0.87  | 0.0343 | 11   | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.87  | 0.0343 | 11   | 0.4331 | 38  | 86   |
| ADS      | 0.87  | 0.0343 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.87  | 0.0343 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS | 0.87  | 0.0343 | 12.5 | 0.4921 | 45  | 96   |
| ADRL     | 0.87  | 0.0343 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.87  | 0.0343 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.87  | 0.0343 | 15   | 0.5906 | 45  | 88   |
| ADR-SP   | 0.875 | 0.0344 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.88  | 0.0346 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.88  | 0.0346 | 4    | 0.1575 | 38  | 78   |
| ADR      | 0.88  | 0.0346 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.88  | 0.0346 | 8    | 0.3150 | 38  | 70   |
| ADR-SUS  | 0.88  | 0.0346 | 8    | 0.3150 | 38  | 92   |
| ADR-SV   | 0.88  | 0.0346 | 8    | 0.3150 | 38  | 82   |
| ADRSL    | 0.88  | 0.0346 | 11   | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.88  | 0.0346 | 11   | 0.4331 | 38  | 86   |
| ADS      | 0.88  | 0.0346 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.88  | 0.0346 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS | 0.88  | 0.0346 | 12.5 | 0.4921 | 45  | 96   |
| ADRL     | 0.88  | 0.0346 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.88  | 0.0346 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.88  | 0.0346 | 15   | 0.5906 | 45  | 88   |
| ADR-SP   | 0.885 | 0.0348 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.89  | 0.0350 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.89  | 0.0350 | 4    | 0.1575 | 38  | 78   |
| ADR      | 0.89  | 0.0350 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.89  | 0.0350 | 8    | 0.3150 | 38  | 70   |
| ADR-SUS  | 0.89  | 0.0350 | 8    | 0.3150 | 38  | 92   |
| ADR-SV   | 0.89  | 0.0350 | 8    | 0.3150 | 38  | 82   |
| ADRSL    | 0.89  | 0.0350 | 11   | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.89  | 0.0350 | 11   | 0.4331 | 38  | 86   |
| ADS      | 0.89  | 0.0350 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.89  | 0.0350 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS | 0.89  | 0.0350 | 12.5 | 0.4921 | 45  | 96   |
| ADRL     | 0.89  | 0.0350 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.89  | 0.0350 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.89  | 0.0350 | 15   | 0.5906 | 45  | 88   |
| ADR-SP   | 0.895 | 0.0352 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.90  | 0.0354 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.90  | 0.0354 | 4    | 0.1575 | 38  | 78   |
| ADR      | 0.90  | 0.0354 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.90  | 0.0354 | 8    | 0.3150 | 38  | 70   |
| ADR-SV   | 0.90  | 0.0354 | 8    | 0.3150 | 38  | 82   |
| ASWR     | 0.90  | 0.0354 | 8    | 0.3150 | 38  | 120  |
| ADR-SUS  | 0.90  | 0.0354 | 9    | 0.3543 | 38  | 92   |

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADRSL    | 0.90  | 0.0354 | 11   | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.90  | 0.0354 | 11   | 0.4331 | 38  | 86   |
| ADS      | 0.90  | 0.0354 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.90  | 0.0354 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS | 0.90  | 0.0354 | 14   | 0.5512 | 45  | 96   |
| ADRL     | 0.90  | 0.0354 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.90  | 0.0354 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.90  | 0.0354 | 15   | 0.5906 | 45  | 88   |
| ADSL     | 0.90  | 0.0354 | 15   | 0.5906 | 50  | 110  |
| ADL      | 0.90  | 0.0354 | 20   | 0.7874 | 75  | 112  |
| ADLL     | 0.90  | 0.0354 | 25   | 0.9843 | 100 | 114  |
| SXG30DN  | 0.90  | 0.0354 | 29.7 | 1.1693 | 65  | 75   |
| SXG40DN  | 0.90  | 0.0354 | 38.7 | 1.5236 | 80  | 76   |
| SXG50DN  | 0.90  | 0.0354 | 47.7 | 1.8780 | 105 | 77   |
| ADR-SP   | 0.905 | 0.0356 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.91  | 0.0358 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.91  | 0.0358 | 4    | 0.1575 | 38  | 78   |
| ADR      | 0.91  | 0.0358 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.91  | 0.0358 | 8    | 0.3150 | 38  | 70   |
| ADR-SV   | 0.91  | 0.0358 | 8    | 0.3150 | 38  | 82   |
| ADR-SUS  | 0.91  | 0.0358 | 9    | 0.3543 | 38  | 92   |
| ADRSL    | 0.91  | 0.0358 | 11   | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.91  | 0.0358 | 11   | 0.4331 | 38  | 86   |
| ADS      | 0.91  | 0.0358 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.91  | 0.0358 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS | 0.91  | 0.0358 | 14   | 0.5512 | 45  | 96   |
| ADRL     | 0.91  | 0.0358 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.91  | 0.0358 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.91  | 0.0358 | 15   | 0.5906 | 45  | 88   |
| ADR-SP   | 0.915 | 0.0360 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.92  | 0.0362 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.92  | 0.0362 | 4    | 0.1575 | 38  | 78   |
| ADR      | 0.92  | 0.0362 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.92  | 0.0362 | 8    | 0.3150 | 38  | 70   |
| ADR-SV   | 0.92  | 0.0362 | 8    | 0.3150 | 38  | 82   |
| ADR-SUS  | 0.92  | 0.0362 | 9    | 0.3543 | 38  | 92   |
| ADRSL    | 0.92  | 0.0362 | 11   | 0.4331 | 38  | 60   |
| ADRSL-SV | 0.92  | 0.0362 | 11   | 0.4331 | 38  | 86   |
| ADS      | 0.92  | 0.0362 | 12   | 0.4724 | 40  | 100  |
| V-ADS    | 0.92  | 0.0362 | 12   | 0.4724 | 40  | 116  |
| ADRL-SUS | 0.92  | 0.0362 | 14   | 0.5512 | 45  | 96   |
| ADRL     | 0.92  | 0.0362 | 15   | 0.5906 | 45  | 62   |
| ADRL-DLC | 0.92  | 0.0362 | 15   | 0.5906 | 45  | 72   |
| ADRL-SV  | 0.92  | 0.0362 | 15   | 0.5906 | 45  | 88   |
| ADR-SP   | 0.925 | 0.0364 | 8    | 0.3150 | 38  | 66   |
| ADRS     | 0.93  | 0.0366 | 4    | 0.1575 | 38  | 52   |
| ADRS-SV  | 0.93  | 0.0366 | 4    | 0.1575 | 38  | 78   |
| ADR      | 0.93  | 0.0366 | 8    | 0.3150 | 38  | 56   |
| ADR-DLC  | 0.93  | 0.0366 | 8    | 0.3150 | 38  | 70   |
| ADR-SV   | 0.93  | 0.0366 | 8    | 0.3150 | 38  | 82   |
| ADR-SUS  | 0.93  | 0.0366 | 9    | 0.3543 | 38  | 92   |
| ADRSL    | 0.93  | 0.0366 | 11   | 0.4331 | 38  | 60   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series    | ØD    |        | FL |        | OAL | Page |
|-----------|-------|--------|----|--------|-----|------|
|           | mm    | inch   | mm | inch   | mm  |      |
| ADRS-L-SV | 0.93  | 0.0366 | 11 | 0.4331 | 38  | 86   |
| ADS       | 0.93  | 0.0366 | 12 | 0.4724 | 40  | 100  |
| V-ADS     | 0.93  | 0.0366 | 12 | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.93  | 0.0366 | 14 | 0.5512 | 45  | 96   |
| ADRL      | 0.93  | 0.0366 | 15 | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.93  | 0.0366 | 15 | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.93  | 0.0366 | 15 | 0.5906 | 45  | 88   |
| ADR-SP    | 0.935 | 0.0368 | 8  | 0.3150 | 38  | 66   |
| ADRS      | 0.94  | 0.0370 | 4  | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.94  | 0.0370 | 4  | 0.1575 | 38  | 78   |
| ADR       | 0.94  | 0.0370 | 8  | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.94  | 0.0370 | 8  | 0.3150 | 38  | 70   |
| ADR-SV    | 0.94  | 0.0370 | 8  | 0.3150 | 38  | 82   |
| ADR-SUS   | 0.94  | 0.0370 | 9  | 0.3543 | 38  | 92   |
| ADRS-L    | 0.94  | 0.0370 | 11 | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.94  | 0.0370 | 11 | 0.4331 | 38  | 86   |
| ADS       | 0.94  | 0.0370 | 12 | 0.4724 | 40  | 100  |
| V-ADS     | 0.94  | 0.0370 | 12 | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.94  | 0.0370 | 14 | 0.5512 | 45  | 96   |
| ADRL      | 0.94  | 0.0370 | 15 | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.94  | 0.0370 | 15 | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.94  | 0.0370 | 15 | 0.5906 | 45  | 88   |
| ADR-SP    | 0.945 | 0.0372 | 8  | 0.3150 | 38  | 66   |
| ADRS      | 0.95  | 0.0374 | 4  | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.95  | 0.0374 | 4  | 0.1575 | 38  | 78   |
| ADR       | 0.95  | 0.0374 | 8  | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.95  | 0.0374 | 8  | 0.3150 | 38  | 70   |
| ADR-SV    | 0.95  | 0.0374 | 8  | 0.3150 | 38  | 82   |
| ASWR      | 0.95  | 0.0374 | 8  | 0.3150 | 38  | 120  |
| ADR-SUS   | 0.95  | 0.0374 | 9  | 0.3543 | 38  | 92   |
| ADRS-L    | 0.95  | 0.0374 | 11 | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.95  | 0.0374 | 11 | 0.4331 | 38  | 86   |
| ADS       | 0.95  | 0.0374 | 12 | 0.4724 | 40  | 100  |
| V-ADS     | 0.95  | 0.0374 | 12 | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.95  | 0.0374 | 14 | 0.5512 | 45  | 96   |
| ADRL      | 0.95  | 0.0374 | 15 | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.95  | 0.0374 | 15 | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.95  | 0.0374 | 15 | 0.5906 | 45  | 88   |
| ADSL      | 0.95  | 0.0374 | 15 | 0.5906 | 50  | 110  |
| ADL       | 0.95  | 0.0374 | 20 | 0.7874 | 75  | 112  |
| ADLL      | 0.95  | 0.0374 | 25 | 0.9843 | 100 | 114  |
| ADR-SP    | 0.955 | 0.0376 | 8  | 0.3150 | 38  | 66   |
| ADRS      | 0.96  | 0.0378 | 4  | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.96  | 0.0378 | 4  | 0.1575 | 38  | 78   |
| ADR       | 0.96  | 0.0378 | 8  | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.96  | 0.0378 | 8  | 0.3150 | 38  | 70   |
| ADR-SV    | 0.96  | 0.0378 | 8  | 0.3150 | 38  | 82   |
| ADR-SUS   | 0.96  | 0.0378 | 9  | 0.3543 | 38  | 92   |
| ADRS-L    | 0.96  | 0.0378 | 11 | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.96  | 0.0378 | 11 | 0.4331 | 38  | 86   |
| ADS       | 0.96  | 0.0378 | 12 | 0.4724 | 40  | 100  |
| V-ADS     | 0.96  | 0.0378 | 12 | 0.4724 | 40  | 116  |

| Series    | ØD    |        | FL |        | OAL | Page |
|-----------|-------|--------|----|--------|-----|------|
|           | mm    | inch   | mm | inch   | mm  |      |
| ADRL-SUS  | 0.96  | 0.0378 | 14 | 0.5512 | 45  | 96   |
| ADRL      | 0.96  | 0.0378 | 15 | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.96  | 0.0378 | 15 | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.96  | 0.0378 | 15 | 0.5906 | 45  | 88   |
| ADR-SP    | 0.965 | 0.0380 | 8  | 0.3150 | 38  | 66   |
| ADRS      | 0.97  | 0.0382 | 4  | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.97  | 0.0382 | 4  | 0.1575 | 38  | 78   |
| ADR       | 0.97  | 0.0382 | 8  | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.97  | 0.0382 | 8  | 0.3150 | 38  | 70   |
| ADR-SV    | 0.97  | 0.0382 | 8  | 0.3150 | 38  | 82   |
| ADR-SUS   | 0.97  | 0.0382 | 9  | 0.3543 | 38  | 92   |
| ADRS-L    | 0.97  | 0.0382 | 11 | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.97  | 0.0382 | 11 | 0.4331 | 38  | 86   |
| ADS       | 0.97  | 0.0382 | 12 | 0.4724 | 40  | 100  |
| V-ADS     | 0.97  | 0.0382 | 12 | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.97  | 0.0382 | 14 | 0.5512 | 45  | 96   |
| ADRL      | 0.97  | 0.0382 | 15 | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.97  | 0.0382 | 15 | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.97  | 0.0382 | 15 | 0.5906 | 45  | 88   |
| ADR-SP    | 0.975 | 0.0384 | 8  | 0.3150 | 38  | 66   |
| ADRS      | 0.98  | 0.0386 | 4  | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.98  | 0.0386 | 4  | 0.1575 | 38  | 78   |
| ADR       | 0.98  | 0.0386 | 8  | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.98  | 0.0386 | 8  | 0.3150 | 38  | 70   |
| ADR-SV    | 0.98  | 0.0386 | 8  | 0.3150 | 38  | 82   |
| ADR-SUS   | 0.98  | 0.0386 | 9  | 0.3543 | 38  | 92   |
| ADRS-L    | 0.98  | 0.0386 | 11 | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.98  | 0.0386 | 11 | 0.4331 | 38  | 86   |
| ADS       | 0.98  | 0.0386 | 12 | 0.4724 | 40  | 100  |
| V-ADS     | 0.98  | 0.0386 | 12 | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.98  | 0.0386 | 14 | 0.5512 | 45  | 96   |
| ADRL      | 0.98  | 0.0386 | 15 | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.98  | 0.0386 | 15 | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.98  | 0.0386 | 15 | 0.5906 | 45  | 88   |
| ADR-SP    | 0.985 | 0.0388 | 8  | 0.3150 | 38  | 66   |
| ADRS      | 0.99  | 0.0390 | 4  | 0.1575 | 38  | 52   |
| ADRS-SV   | 0.99  | 0.0390 | 4  | 0.1575 | 38  | 78   |
| ADR       | 0.99  | 0.0390 | 8  | 0.3150 | 38  | 56   |
| ADR-DLC   | 0.99  | 0.0390 | 8  | 0.3150 | 38  | 70   |
| ADR-SV    | 0.99  | 0.0390 | 8  | 0.3150 | 38  | 82   |
| ADR-SUS   | 0.99  | 0.0390 | 9  | 0.3543 | 38  | 92   |
| ADRS-L    | 0.99  | 0.0390 | 11 | 0.4331 | 38  | 60   |
| ADRS-L-SV | 0.99  | 0.0390 | 11 | 0.4331 | 38  | 86   |
| ADS       | 0.99  | 0.0390 | 12 | 0.4724 | 40  | 100  |
| V-ADS     | 0.99  | 0.0390 | 12 | 0.4724 | 40  | 116  |
| ADRL-SUS  | 0.99  | 0.0390 | 14 | 0.5512 | 45  | 96   |
| ADRL      | 0.99  | 0.0390 | 15 | 0.5906 | 45  | 62   |
| ADRL-DLC  | 0.99  | 0.0390 | 15 | 0.5906 | 45  | 72   |
| ADRL-SV   | 0.99  | 0.0390 | 15 | 0.5906 | 45  | 88   |
| ADR-SP    | 0.995 | 0.0392 | 10 | 0.3937 | 38  | 66   |
| ADRS      | 1.00  | 0.0394 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV   | 1.00  | 0.0394 | 5  | 0.1969 | 38  | 78   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADR      | 1.00  | 0.0394 | 10 | 0.3937 | 38  | 56   |
| ADR-DLC  | 1.00  | 0.0394 | 10 | 0.3937 | 38  | 70   |
| ADR-SUS  | 1.00  | 0.0394 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.00  | 0.0394 | 10 | 0.3937 | 38  | 82   |
| ASWR     | 1.00  | 0.0394 | 10 | 0.3937 | 38  | 120  |
| ADRL-SUS | 1.00  | 0.0394 | 15 | 0.5906 | 45  | 96   |
| ADRSL    | 1.00  | 0.0394 | 15 | 0.5906 | 45  | 60   |
| ADRSL-SV | 1.00  | 0.0394 | 15 | 0.5906 | 45  | 86   |
| ADS      | 1.00  | 0.0394 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.00  | 0.0394 | 15 | 0.5906 | 40  | 116  |
| ADSL     | 1.00  | 0.0394 | 16 | 0.6299 | 50  | 110  |
| ASWD     | 1.00  | 0.0394 | 16 | 0.6299 | 50  | 121  |
| ADRL     | 1.00  | 0.0394 | 20 | 0.7874 | 50  | 62   |
| ADRL-DLC | 1.00  | 0.0394 | 20 | 0.7874 | 50  | 72   |
| ADRL-SV  | 1.00  | 0.0394 | 20 | 0.7874 | 50  | 88   |
| ADL      | 1.00  | 0.0394 | 25 | 0.9843 | 75  | 112  |
| ADLL     | 1.00  | 0.0394 | 30 | 1.1811 | 100 | 114  |
| SG30DN   | 1.00  | 0.0394 | 33 | 1.2992 | 65  | 75   |
| SG40DN   | 1.00  | 0.0394 | 43 | 1.6929 | 80  | 76   |
| SG50DN   | 1.00  | 0.0394 | 53 | 2.0866 | 105 | 77   |
| ADR-SP   | 1.005 | 0.0396 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.01  | 0.0398 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.01  | 0.0398 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.01  | 0.0398 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.01  | 0.0398 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.01  | 0.0398 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.01  | 0.0398 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.01  | 0.0398 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.01  | 0.0398 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.01  | 0.0398 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.01  | 0.0398 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.015 | 0.0400 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.02  | 0.0402 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.02  | 0.0402 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.02  | 0.0402 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.02  | 0.0402 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.02  | 0.0402 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.02  | 0.0402 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.02  | 0.0402 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.02  | 0.0402 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.02  | 0.0402 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.02  | 0.0402 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.025 | 0.0404 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.03  | 0.0406 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.03  | 0.0406 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.03  | 0.0406 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.03  | 0.0406 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.03  | 0.0406 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.03  | 0.0406 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.03  | 0.0406 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.03  | 0.0406 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.03  | 0.0406 | 20 | 0.7874 | 50  | 62   |

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADRL-SV  | 1.03  | 0.0406 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.035 | 0.0407 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.04  | 0.0409 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.04  | 0.0409 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.04  | 0.0409 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.04  | 0.0409 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.04  | 0.0409 | 10 | 0.3937 | 38  | 82   |
| ADRL-SV  | 1.04  | 0.0409 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.04  | 0.0409 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.04  | 0.0409 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.04  | 0.0409 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.04  | 0.0409 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.045 | 0.0411 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.05  | 0.0413 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.05  | 0.0413 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.05  | 0.0413 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.05  | 0.0413 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.05  | 0.0413 | 10 | 0.3937 | 38  | 82   |
| ASWR     | 1.05  | 0.0413 | 10 | 0.3937 | 38  | 120  |
| ADRL-SUS | 1.05  | 0.0413 | 15 | 0.5906 | 45  | 96   |
| ADRSL    | 1.05  | 0.0413 | 15 | 0.5906 | 45  | 60   |
| ADRSL-SV | 1.05  | 0.0413 | 15 | 0.5906 | 45  | 86   |
| ADS      | 1.05  | 0.0413 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.05  | 0.0413 | 15 | 0.5906 | 40  | 116  |
| ADSL     | 1.05  | 0.0413 | 16 | 0.6299 | 50  | 110  |
| ADRL     | 1.05  | 0.0413 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.05  | 0.0413 | 20 | 0.7874 | 50  | 88   |
| ADL      | 1.05  | 0.0413 | 25 | 0.9843 | 75  | 112  |
| ADLL     | 1.05  | 0.0413 | 30 | 1.1811 | 100 | 114  |
| ADR-SP   | 1.055 | 0.0415 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.06  | 0.0417 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.06  | 0.0417 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.06  | 0.0417 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.06  | 0.0417 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.06  | 0.0417 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.06  | 0.0417 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.06  | 0.0417 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.06  | 0.0417 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.06  | 0.0417 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.06  | 0.0417 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.065 | 0.0419 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.07  | 0.0421 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.07  | 0.0421 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.07  | 0.0421 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.07  | 0.0421 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.07  | 0.0421 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.07  | 0.0421 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.07  | 0.0421 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.07  | 0.0421 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.07  | 0.0421 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.07  | 0.0421 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.075 | 0.0423 | 10 | 0.3937 | 38  | 66   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADRS     | 1.08  | 0.0425 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.08  | 0.0425 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.08  | 0.0425 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.08  | 0.0425 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.08  | 0.0425 | 10   | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.08  | 0.0425 | 15   | 0.5906 | 45  | 96   |
| ADS      | 1.08  | 0.0425 | 15   | 0.5906 | 40  | 100  |
| V-ADS    | 1.08  | 0.0425 | 15   | 0.5906 | 40  | 116  |
| ADRL     | 1.08  | 0.0425 | 20   | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.08  | 0.0425 | 20   | 0.7874 | 50  | 88   |
| ADR-SP   | 1.085 | 0.0427 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.09  | 0.0429 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.09  | 0.0429 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.09  | 0.0429 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.09  | 0.0429 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.09  | 0.0429 | 10   | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.09  | 0.0429 | 15   | 0.5906 | 45  | 96   |
| ADS      | 1.09  | 0.0429 | 15   | 0.5906 | 40  | 100  |
| V-ADS    | 1.09  | 0.0429 | 15   | 0.5906 | 40  | 116  |
| ADRL     | 1.09  | 0.0429 | 20   | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.09  | 0.0429 | 20   | 0.7874 | 50  | 88   |
| ADR-SP   | 1.095 | 0.0431 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.10  | 0.0433 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.10  | 0.0433 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.10  | 0.0433 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.10  | 0.0433 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.10  | 0.0433 | 10   | 0.3937 | 38  | 82   |
| ASWR     | 1.10  | 0.0433 | 10   | 0.3937 | 38  | 120  |
| ADRL-SUS | 1.10  | 0.0433 | 15   | 0.5906 | 45  | 96   |
| ADRL     | 1.10  | 0.0433 | 15   | 0.5906 | 45  | 60   |
| ADRL-SV  | 1.10  | 0.0433 | 15   | 0.5906 | 45  | 86   |
| ADS      | 1.10  | 0.0433 | 15   | 0.5906 | 40  | 100  |
| V-ADS    | 1.10  | 0.0433 | 15   | 0.5906 | 40  | 116  |
| ADSL     | 1.10  | 0.0433 | 16   | 0.6299 | 50  | 110  |
| ASWD     | 1.10  | 0.0433 | 16   | 0.6299 | 50  | 121  |
| ADRL     | 1.10  | 0.0433 | 20   | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.10  | 0.0433 | 20   | 0.7874 | 50  | 88   |
| ADL      | 1.10  | 0.0433 | 25   | 0.9843 | 75  | 112  |
| ADLL     | 1.10  | 0.0433 | 30   | 1.1811 | 100 | 114  |
| SXG30DN  | 1.10  | 0.0433 | 36.3 | 1.4291 | 80  | 75   |
| SXG40DN  | 1.10  | 0.0433 | 47.3 | 1.8622 | 80  | 76   |
| SXG50DN  | 1.10  | 0.0433 | 58.3 | 2.2953 | 105 | 77   |
| ADR-SP   | 1.105 | 0.0435 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.11  | 0.0437 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.11  | 0.0437 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.11  | 0.0437 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.11  | 0.0437 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.11  | 0.0437 | 10   | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.11  | 0.0437 | 15   | 0.5906 | 45  | 96   |
| ADS      | 1.11  | 0.0437 | 15   | 0.5906 | 40  | 100  |
| V-ADS    | 1.11  | 0.0437 | 15   | 0.5906 | 40  | 116  |
| ADRL     | 1.11  | 0.0437 | 20   | 0.7874 | 50  | 62   |

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADRL-SV  | 1.11  | 0.0437 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.115 | 0.0439 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.12  | 0.0441 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.12  | 0.0441 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.12  | 0.0441 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.12  | 0.0441 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.12  | 0.0441 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.12  | 0.0441 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.12  | 0.0441 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.12  | 0.0441 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.12  | 0.0441 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.12  | 0.0441 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.125 | 0.0443 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.13  | 0.0445 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.13  | 0.0445 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.13  | 0.0445 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.13  | 0.0445 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.13  | 0.0445 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.13  | 0.0445 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.13  | 0.0445 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.13  | 0.0445 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.13  | 0.0445 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.13  | 0.0445 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.135 | 0.0447 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.14  | 0.0449 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.14  | 0.0449 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.14  | 0.0449 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.14  | 0.0449 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.14  | 0.0449 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.14  | 0.0449 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.14  | 0.0449 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.14  | 0.0449 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.14  | 0.0449 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.14  | 0.0449 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.145 | 0.0451 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.15  | 0.0453 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.15  | 0.0453 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.15  | 0.0453 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.15  | 0.0453 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.15  | 0.0453 | 10 | 0.3937 | 38  | 82   |
| ASWR     | 1.15  | 0.0453 | 10 | 0.3937 | 38  | 120  |
| ADRL-SUS | 1.15  | 0.0453 | 15 | 0.5906 | 45  | 96   |
| ADRL     | 1.15  | 0.0453 | 15 | 0.5906 | 45  | 60   |
| ADRL-SV  | 1.15  | 0.0453 | 15 | 0.5906 | 45  | 86   |
| ADS      | 1.15  | 0.0453 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.15  | 0.0453 | 15 | 0.5906 | 40  | 116  |
| ADSL     | 1.15  | 0.0453 | 16 | 0.6299 | 50  | 110  |
| ADRL     | 1.15  | 0.0453 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.15  | 0.0453 | 20 | 0.7874 | 50  | 88   |
| ADL      | 1.15  | 0.0453 | 25 | 0.9843 | 75  | 112  |
| ADLL     | 1.15  | 0.0453 | 30 | 1.1811 | 100 | 114  |
| ADR-SP   | 1.155 | 0.0455 | 10 | 0.3937 | 38  | 66   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADRS     | 1.16  | 0.0457 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.16  | 0.0457 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.16  | 0.0457 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.16  | 0.0457 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.16  | 0.0457 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.16  | 0.0457 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.16  | 0.0457 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.16  | 0.0457 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.16  | 0.0457 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.16  | 0.0457 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.165 | 0.0459 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.17  | 0.0461 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.17  | 0.0461 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.17  | 0.0461 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.17  | 0.0461 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.17  | 0.0461 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.17  | 0.0461 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.17  | 0.0461 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.17  | 0.0461 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.17  | 0.0461 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.17  | 0.0461 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.175 | 0.0463 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.18  | 0.0465 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.18  | 0.0465 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.18  | 0.0465 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.18  | 0.0465 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.18  | 0.0465 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.18  | 0.0465 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.18  | 0.0465 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.18  | 0.0465 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.18  | 0.0465 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.18  | 0.0465 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.185 | 0.0467 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.19  | 0.0469 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.19  | 0.0469 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.19  | 0.0469 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.19  | 0.0469 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.19  | 0.0469 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.19  | 0.0469 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.19  | 0.0469 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.19  | 0.0469 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.19  | 0.0469 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.19  | 0.0469 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.195 | 0.0470 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.20  | 0.0472 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.20  | 0.0472 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.20  | 0.0472 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.20  | 0.0472 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.20  | 0.0472 | 10 | 0.3937 | 38  | 82   |
| ASWR     | 1.20  | 0.0472 | 10 | 0.3937 | 38  | 120  |
| ADRL-SUS | 1.20  | 0.0472 | 15 | 0.5906 | 45  | 96   |
| ADRL     | 1.20  | 0.0472 | 15 | 0.5906 | 45  | 60   |

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADRL-SV  | 1.20  | 0.0472 | 15   | 0.5906 | 45  | 86   |
| ADS      | 1.20  | 0.0472 | 15   | 0.5906 | 40  | 100  |
| V-ADS    | 1.20  | 0.0472 | 15   | 0.5906 | 40  | 116  |
| ADSL     | 1.20  | 0.0472 | 18   | 0.7087 | 50  | 110  |
| ASWD     | 1.20  | 0.0472 | 18   | 0.7087 | 50  | 121  |
| ADRL     | 1.20  | 0.0472 | 20   | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.20  | 0.0472 | 20   | 0.7874 | 50  | 88   |
| ADL      | 1.20  | 0.0472 | 25   | 0.9843 | 75  | 112  |
| ADLL     | 1.20  | 0.0472 | 35   | 1.3780 | 100 | 114  |
| SXG30DN  | 1.20  | 0.0472 | 39.6 | 1.5591 | 80  | 75   |
| SXG40DN  | 1.20  | 0.0472 | 51.6 | 2.0315 | 105 | 76   |
| SXG50DN  | 1.20  | 0.0472 | 63.6 | 2.5039 | 105 | 77   |
| ADR-SP   | 1.205 | 0.0474 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.21  | 0.0476 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.21  | 0.0476 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.21  | 0.0476 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.21  | 0.0476 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.21  | 0.0476 | 10   | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.21  | 0.0476 | 15   | 0.5906 | 45  | 96   |
| ADS      | 1.21  | 0.0476 | 15   | 0.5906 | 40  | 100  |
| V-ADS    | 1.21  | 0.0476 | 15   | 0.5906 | 40  | 116  |
| ADRL     | 1.21  | 0.0476 | 20   | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.21  | 0.0476 | 20   | 0.7874 | 50  | 88   |
| ADR-SP   | 1.215 | 0.0478 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.22  | 0.0480 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.22  | 0.0480 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.22  | 0.0480 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.22  | 0.0480 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.22  | 0.0480 | 10   | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.22  | 0.0480 | 15   | 0.5906 | 45  | 96   |
| ADS      | 1.22  | 0.0480 | 15   | 0.5906 | 40  | 100  |
| V-ADS    | 1.22  | 0.0480 | 15   | 0.5906 | 40  | 116  |
| ADRL     | 1.22  | 0.0480 | 20   | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.22  | 0.0480 | 20   | 0.7874 | 50  | 88   |
| ADR-SP   | 1.225 | 0.0482 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.23  | 0.0484 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.23  | 0.0484 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.23  | 0.0484 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.23  | 0.0484 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.23  | 0.0484 | 10   | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.23  | 0.0484 | 15   | 0.5906 | 45  | 96   |
| ADS      | 1.23  | 0.0484 | 15   | 0.5906 | 40  | 100  |
| V-ADS    | 1.23  | 0.0484 | 15   | 0.5906 | 40  | 116  |
| ADRL     | 1.23  | 0.0484 | 20   | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.23  | 0.0484 | 20   | 0.7874 | 50  | 88   |
| ADR-SP   | 1.235 | 0.0486 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.24  | 0.0488 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.24  | 0.0488 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.24  | 0.0488 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.24  | 0.0488 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.24  | 0.0488 | 10   | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.24  | 0.0488 | 15   | 0.5906 | 45  | 96   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADS      | 1.24  | 0.0488 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.24  | 0.0488 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.24  | 0.0488 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.24  | 0.0488 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.245 | 0.0490 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.25  | 0.0492 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.25  | 0.0492 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.25  | 0.0492 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.25  | 0.0492 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.25  | 0.0492 | 10 | 0.3937 | 38  | 82   |
| ASWR     | 1.25  | 0.0492 | 10 | 0.3937 | 38  | 120  |
| ADRL-SUS | 1.25  | 0.0492 | 15 | 0.5906 | 45  | 96   |
| ADRSL    | 1.25  | 0.0492 | 15 | 0.5906 | 45  | 60   |
| ADRSL-SV | 1.25  | 0.0492 | 15 | 0.5906 | 45  | 86   |
| ADS      | 1.25  | 0.0492 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.25  | 0.0492 | 15 | 0.5906 | 40  | 116  |
| ADSL     | 1.25  | 0.0492 | 18 | 0.7087 | 50  | 110  |
| ADRL     | 1.25  | 0.0492 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.25  | 0.0492 | 20 | 0.7874 | 50  | 88   |
| ADL      | 1.25  | 0.0492 | 25 | 0.9843 | 75  | 112  |
| ADLL     | 1.25  | 0.0492 | 35 | 1.3780 | 100 | 114  |
| ADR-SP   | 1.255 | 0.0494 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.26  | 0.0496 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.26  | 0.0496 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.26  | 0.0496 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.26  | 0.0496 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.26  | 0.0496 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.26  | 0.0496 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.26  | 0.0496 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.26  | 0.0496 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.26  | 0.0496 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.26  | 0.0496 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.265 | 0.0498 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.27  | 0.0500 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.27  | 0.0500 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.27  | 0.0500 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.27  | 0.0500 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.27  | 0.0500 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.27  | 0.0500 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.27  | 0.0500 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.27  | 0.0500 | 15 | 0.5906 | 40  | 116  |
| ADRL     | 1.27  | 0.0500 | 20 | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.27  | 0.0500 | 20 | 0.7874 | 50  | 88   |
| ADR-SP   | 1.275 | 0.0502 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.28  | 0.0504 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.28  | 0.0504 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.28  | 0.0504 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.28  | 0.0504 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.28  | 0.0504 | 10 | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.28  | 0.0504 | 15 | 0.5906 | 45  | 96   |
| ADS      | 1.28  | 0.0504 | 15 | 0.5906 | 40  | 100  |
| V-ADS    | 1.28  | 0.0504 | 15 | 0.5906 | 40  | 116  |

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADRL     | 1.28  | 0.0504 | 20   | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.28  | 0.0504 | 20   | 0.7874 | 50  | 88   |
| ADR-SP   | 1.285 | 0.0506 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.29  | 0.0508 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.29  | 0.0508 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.29  | 0.0508 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.29  | 0.0508 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.29  | 0.0508 | 10   | 0.3937 | 38  | 82   |
| ADRL-SUS | 1.29  | 0.0508 | 15   | 0.5906 | 45  | 96   |
| ADS      | 1.29  | 0.0508 | 15   | 0.5906 | 40  | 100  |
| V-ADS    | 1.29  | 0.0508 | 15   | 0.5906 | 40  | 116  |
| ADRL     | 1.29  | 0.0508 | 20   | 0.7874 | 50  | 62   |
| ADRL-SV  | 1.29  | 0.0508 | 20   | 0.7874 | 50  | 88   |
| ADR-SP   | 1.295 | 0.0510 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.30  | 0.0512 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.30  | 0.0512 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.30  | 0.0512 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.30  | 0.0512 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.30  | 0.0512 | 10   | 0.3937 | 38  | 82   |
| ASWR     | 1.30  | 0.0512 | 10   | 0.3937 | 38  | 120  |
| ADS      | 1.30  | 0.0512 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.30  | 0.0512 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.30  | 0.0512 | 17   | 0.6693 | 45  | 96   |
| ADRSL    | 1.30  | 0.0512 | 18   | 0.7087 | 45  | 60   |
| ADRSL-SV | 1.30  | 0.0512 | 18   | 0.7087 | 45  | 86   |
| ADSL     | 1.30  | 0.0512 | 18   | 0.7087 | 50  | 110  |
| ASWD     | 1.30  | 0.0512 | 18   | 0.7087 | 50  | 121  |
| ADL      | 1.30  | 0.0512 | 25   | 0.9843 | 75  | 112  |
| ADRL     | 1.30  | 0.0512 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.30  | 0.0512 | 25   | 0.9843 | 60  | 88   |
| ADLL     | 1.30  | 0.0512 | 35   | 1.3780 | 100 | 114  |
| SXG30DN  | 1.30  | 0.0512 | 42.9 | 1.6890 | 80  | 75   |
| SXG40DN  | 1.30  | 0.0512 | 55.9 | 2.2008 | 105 | 76   |
| SXG50DN  | 1.30  | 0.0512 | 68.9 | 2.7126 | 120 | 77   |
| ADR-SP   | 1.305 | 0.0514 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.31  | 0.0516 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.31  | 0.0516 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.31  | 0.0516 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.31  | 0.0516 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.31  | 0.0516 | 10   | 0.3937 | 38  | 82   |
| ADS      | 1.31  | 0.0516 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.31  | 0.0516 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.31  | 0.0516 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.31  | 0.0516 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.31  | 0.0516 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.315 | 0.0518 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.32  | 0.0520 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.32  | 0.0520 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.32  | 0.0520 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.32  | 0.0520 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.32  | 0.0520 | 10   | 0.3937 | 38  | 82   |
| ADS      | 1.32  | 0.0520 | 16   | 0.6299 | 40  | 100  |



# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| V-ADS    | 1.32  | 0.0520 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.32  | 0.0520 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.32  | 0.0520 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.32  | 0.0520 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.325 | 0.0522 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.33  | 0.0524 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.33  | 0.0524 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.33  | 0.0524 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.33  | 0.0524 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.33  | 0.0524 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.33  | 0.0524 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.33  | 0.0524 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.33  | 0.0524 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.33  | 0.0524 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.33  | 0.0524 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.335 | 0.0526 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.34  | 0.0528 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.34  | 0.0528 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.34  | 0.0528 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.34  | 0.0528 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.34  | 0.0528 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.34  | 0.0528 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.34  | 0.0528 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.34  | 0.0528 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.34  | 0.0528 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.34  | 0.0528 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.345 | 0.0530 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.35  | 0.0531 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.35  | 0.0531 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.35  | 0.0531 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.35  | 0.0531 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.35  | 0.0531 | 10 | 0.3937 | 38  | 82   |
| ASWR     | 1.35  | 0.0531 | 10 | 0.3937 | 38  | 120  |
| ADS      | 1.35  | 0.0531 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.35  | 0.0531 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.35  | 0.0531 | 17 | 0.6693 | 45  | 96   |
| ADRSL    | 1.35  | 0.0531 | 18 | 0.7087 | 45  | 60   |
| ADRSL-SV | 1.35  | 0.0531 | 18 | 0.7087 | 45  | 86   |
| ADSL     | 1.35  | 0.0531 | 18 | 0.7087 | 50  | 110  |
| ADL      | 1.35  | 0.0531 | 25 | 0.9843 | 75  | 112  |
| ADRL     | 1.35  | 0.0531 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.35  | 0.0531 | 25 | 0.9843 | 60  | 88   |
| ADLL     | 1.35  | 0.0531 | 35 | 1.3780 | 100 | 114  |
| ADR-SP   | 1.355 | 0.0533 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.36  | 0.0535 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.36  | 0.0535 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.36  | 0.0535 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.36  | 0.0535 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.36  | 0.0535 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.36  | 0.0535 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.36  | 0.0535 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.36  | 0.0535 | 17 | 0.6693 | 45  | 96   |

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADRL     | 1.36  | 0.0535 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.36  | 0.0535 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.365 | 0.0537 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.37  | 0.0539 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.37  | 0.0539 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.37  | 0.0539 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.37  | 0.0539 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.37  | 0.0539 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.37  | 0.0539 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.37  | 0.0539 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.37  | 0.0539 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.37  | 0.0539 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.37  | 0.0539 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.375 | 0.0541 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.38  | 0.0543 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.38  | 0.0543 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.38  | 0.0543 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.38  | 0.0543 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.38  | 0.0543 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.38  | 0.0543 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.38  | 0.0543 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.38  | 0.0543 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.38  | 0.0543 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.38  | 0.0543 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.385 | 0.0545 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.39  | 0.0547 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.39  | 0.0547 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.39  | 0.0547 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.39  | 0.0547 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.39  | 0.0547 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.39  | 0.0547 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.39  | 0.0547 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.39  | 0.0547 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.39  | 0.0547 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.39  | 0.0547 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.395 | 0.0549 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.40  | 0.0551 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.40  | 0.0551 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.40  | 0.0551 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.40  | 0.0551 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.40  | 0.0551 | 10 | 0.3937 | 38  | 82   |
| ASWR     | 1.40  | 0.0551 | 10 | 0.3937 | 38  | 120  |
| ADS      | 1.40  | 0.0551 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.40  | 0.0551 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.40  | 0.0551 | 17 | 0.6693 | 45  | 96   |
| ADRSL    | 1.40  | 0.0551 | 18 | 0.7087 | 45  | 60   |
| ADRSL-SV | 1.40  | 0.0551 | 18 | 0.7087 | 45  | 86   |
| ADSL     | 1.40  | 0.0551 | 18 | 0.7087 | 50  | 110  |
| ASWD     | 1.40  | 0.0551 | 18 | 0.7087 | 50  | 121  |
| ADRL     | 1.40  | 0.0551 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.40  | 0.0551 | 25 | 0.9843 | 60  | 88   |
| ADL      | 1.40  | 0.0551 | 30 | 1.1811 | 75  | 112  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADLL     | 1.40  | 0.0551 | 40   | 1.5748 | 100 | 114  |
| SXG30DN  | 1.40  | 0.0551 | 46.2 | 1.8189 | 80  | 75   |
| SXG40DN  | 1.40  | 0.0551 | 60.2 | 2.3701 | 105 | 76   |
| SXG50DN  | 1.40  | 0.0551 | 74.2 | 2.9213 | 120 | 77   |
| ADR-SP   | 1.405 | 0.0553 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.41  | 0.0555 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.41  | 0.0555 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.41  | 0.0555 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.41  | 0.0555 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.41  | 0.0555 | 10   | 0.3937 | 38  | 82   |
| ADS      | 1.41  | 0.0555 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.41  | 0.0555 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.41  | 0.0555 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.41  | 0.0555 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.41  | 0.0555 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.415 | 0.0557 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.42  | 0.0559 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.42  | 0.0559 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.42  | 0.0559 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.42  | 0.0559 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.42  | 0.0559 | 10   | 0.3937 | 38  | 82   |
| ADS      | 1.42  | 0.0559 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.42  | 0.0559 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.42  | 0.0559 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.42  | 0.0559 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.42  | 0.0559 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.425 | 0.0561 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.43  | 0.0563 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.43  | 0.0563 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.43  | 0.0563 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.43  | 0.0563 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.43  | 0.0563 | 10   | 0.3937 | 38  | 82   |
| ADS      | 1.43  | 0.0563 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.43  | 0.0563 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.43  | 0.0563 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.43  | 0.0563 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.43  | 0.0563 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.435 | 0.0565 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.44  | 0.0567 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.44  | 0.0567 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.44  | 0.0567 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.44  | 0.0567 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.44  | 0.0567 | 10   | 0.3937 | 38  | 82   |
| ADS      | 1.44  | 0.0567 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.44  | 0.0567 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.44  | 0.0567 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.44  | 0.0567 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.44  | 0.0567 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.445 | 0.0569 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.45  | 0.0571 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.45  | 0.0571 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.45  | 0.0571 | 10   | 0.3937 | 38  | 56   |

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADR-SUS  | 1.45  | 0.0571 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.45  | 0.0571 | 10 | 0.3937 | 38  | 82   |
| ASWR     | 1.45  | 0.0571 | 10 | 0.3937 | 38  | 120  |
| ADS      | 1.45  | 0.0571 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.45  | 0.0571 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.45  | 0.0571 | 17 | 0.6693 | 45  | 96   |
| ADRSL    | 1.45  | 0.0571 | 18 | 0.7087 | 45  | 60   |
| ADRSL-SV | 1.45  | 0.0571 | 18 | 0.7087 | 45  | 86   |
| ADSL     | 1.45  | 0.0571 | 18 | 0.7087 | 50  | 110  |
| ADRL     | 1.45  | 0.0571 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.45  | 0.0571 | 25 | 0.9843 | 60  | 88   |
| ADL      | 1.45  | 0.0571 | 30 | 1.1811 | 75  | 112  |
| ADLL     | 1.45  | 0.0571 | 40 | 1.5748 | 100 | 114  |
| ADR-SP   | 1.455 | 0.0573 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.46  | 0.0575 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.46  | 0.0575 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.46  | 0.0575 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.46  | 0.0575 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.46  | 0.0575 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.46  | 0.0575 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.46  | 0.0575 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.46  | 0.0575 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.46  | 0.0575 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.46  | 0.0575 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.465 | 0.0577 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.47  | 0.0579 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.47  | 0.0579 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.47  | 0.0579 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.47  | 0.0579 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.47  | 0.0579 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.47  | 0.0579 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.47  | 0.0579 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.47  | 0.0579 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.47  | 0.0579 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.47  | 0.0579 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.475 | 0.0581 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.48  | 0.0583 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.48  | 0.0583 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.48  | 0.0583 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.48  | 0.0583 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.48  | 0.0583 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.48  | 0.0583 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.48  | 0.0583 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.48  | 0.0583 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.48  | 0.0583 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.48  | 0.0583 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.485 | 0.0585 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.49  | 0.0587 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.49  | 0.0587 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.49  | 0.0587 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.49  | 0.0587 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.49  | 0.0587 | 10 | 0.3937 | 38  | 82   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADS      | 1.49  | 0.0587 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.49  | 0.0587 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.49  | 0.0587 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.49  | 0.0587 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.49  | 0.0587 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.495 | 0.0589 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.50  | 0.0591 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.50  | 0.0591 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.50  | 0.0591 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.50  | 0.0591 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.50  | 0.0591 | 10   | 0.3937 | 38  | 82   |
| ASWR     | 1.50  | 0.0591 | 15   | 0.5906 | 45  | 120  |
| ADS      | 1.50  | 0.0591 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.50  | 0.0591 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.50  | 0.0591 | 17   | 0.6693 | 45  | 96   |
| ADRSL    | 1.50  | 0.0591 | 18   | 0.7087 | 45  | 60   |
| ADRSL-SV | 1.50  | 0.0591 | 18   | 0.7087 | 45  | 86   |
| ADSL     | 1.50  | 0.0591 | 24   | 0.9449 | 50  | 110  |
| ASWD     | 1.50  | 0.0591 | 24   | 0.9449 | 55  | 121  |
| ADRL     | 1.50  | 0.0591 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.50  | 0.0591 | 25   | 0.9843 | 60  | 88   |
| ADL      | 1.50  | 0.0591 | 30   | 1.1811 | 75  | 112  |
| ADLL     | 1.50  | 0.0591 | 40   | 1.5748 | 100 | 114  |
| SKG30DN  | 1.50  | 0.0591 | 49.5 | 1.9488 | 80  | 75   |
| SKG40DN  | 1.50  | 0.0591 | 64.5 | 2.5394 | 105 | 76   |
| SKG50DN  | 1.50  | 0.0591 | 79.5 | 3.1299 | 120 | 77   |
| ADR-SP   | 1.505 | 0.0593 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.51  | 0.0594 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.51  | 0.0594 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.51  | 0.0594 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.51  | 0.0594 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.51  | 0.0594 | 10   | 0.3937 | 38  | 82   |
| ADS      | 1.51  | 0.0594 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.51  | 0.0594 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.51  | 0.0594 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.51  | 0.0594 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.51  | 0.0594 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.515 | 0.0596 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.52  | 0.0598 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.52  | 0.0598 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.52  | 0.0598 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.52  | 0.0598 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.52  | 0.0598 | 10   | 0.3937 | 38  | 82   |
| ADS      | 1.52  | 0.0598 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.52  | 0.0598 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.52  | 0.0598 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.52  | 0.0598 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.52  | 0.0598 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.525 | 0.0600 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.53  | 0.0602 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.53  | 0.0602 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.53  | 0.0602 | 10   | 0.3937 | 38  | 56   |

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADR-SUS  | 1.53  | 0.0602 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.53  | 0.0602 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.53  | 0.0602 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.53  | 0.0602 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.53  | 0.0602 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.53  | 0.0602 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.53  | 0.0602 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.535 | 0.0604 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.54  | 0.0606 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.54  | 0.0606 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.54  | 0.0606 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.54  | 0.0606 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.54  | 0.0606 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.54  | 0.0606 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.54  | 0.0606 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.54  | 0.0606 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.54  | 0.0606 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.54  | 0.0606 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.545 | 0.0608 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.55  | 0.0610 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.55  | 0.0610 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.55  | 0.0610 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.55  | 0.0610 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.55  | 0.0610 | 10 | 0.3937 | 38  | 82   |
| ASWR     | 1.55  | 0.0610 | 15 | 0.5906 | 45  | 120  |
| ADS      | 1.55  | 0.0610 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.55  | 0.0610 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.55  | 0.0610 | 17 | 0.6693 | 45  | 96   |
| ADRSL    | 1.55  | 0.0610 | 18 | 0.7087 | 45  | 60   |
| ADRSL-SV | 1.55  | 0.0610 | 18 | 0.7087 | 45  | 86   |
| ADSL     | 1.55  | 0.0610 | 24 | 0.9449 | 50  | 110  |
| ADRL     | 1.55  | 0.0610 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.55  | 0.0610 | 25 | 0.9843 | 60  | 88   |
| ADL      | 1.55  | 0.0610 | 30 | 1.1811 | 75  | 112  |
| ADLL     | 1.55  | 0.0610 | 40 | 1.5748 | 100 | 114  |
| ADR-SP   | 1.555 | 0.0612 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.56  | 0.0614 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.56  | 0.0614 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.56  | 0.0614 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.56  | 0.0614 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.56  | 0.0614 | 10 | 0.3937 | 38  | 82   |
| ADS      | 1.56  | 0.0614 | 16 | 0.6299 | 40  | 100  |
| V-ADS    | 1.56  | 0.0614 | 16 | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.56  | 0.0614 | 17 | 0.6693 | 45  | 96   |
| ADRL     | 1.56  | 0.0614 | 25 | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.56  | 0.0614 | 25 | 0.9843 | 60  | 88   |
| ADR-SP   | 1.565 | 0.0616 | 10 | 0.3937 | 38  | 66   |
| ADRS     | 1.57  | 0.0618 | 5  | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.57  | 0.0618 | 5  | 0.1969 | 38  | 78   |
| ADR      | 1.57  | 0.0618 | 10 | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.57  | 0.0618 | 10 | 0.3937 | 38  | 92   |
| ADR-SV   | 1.57  | 0.0618 | 10 | 0.3937 | 38  | 82   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADS      | 1.57  | 0.0618 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.57  | 0.0618 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.57  | 0.0618 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.57  | 0.0618 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.57  | 0.0618 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.575 | 0.0620 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.58  | 0.0622 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.58  | 0.0622 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.58  | 0.0622 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.58  | 0.0622 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.58  | 0.0622 | 10   | 0.3937 | 38  | 82   |
| ADS      | 1.58  | 0.0622 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.58  | 0.0622 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.58  | 0.0622 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.58  | 0.0622 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.58  | 0.0622 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.585 | 0.0624 | 10   | 0.3937 | 38  | 66   |
| ADRS     | 1.59  | 0.0626 | 5    | 0.1969 | 38  | 52   |
| ADRS-SV  | 1.59  | 0.0626 | 5    | 0.1969 | 38  | 78   |
| ADR      | 1.59  | 0.0626 | 10   | 0.3937 | 38  | 56   |
| ADR-SUS  | 1.59  | 0.0626 | 10   | 0.3937 | 38  | 92   |
| ADR-SV   | 1.59  | 0.0626 | 10   | 0.3937 | 38  | 82   |
| ADS      | 1.59  | 0.0626 | 16   | 0.6299 | 40  | 100  |
| V-ADS    | 1.59  | 0.0626 | 16   | 0.6299 | 40  | 116  |
| ADRL-SUS | 1.59  | 0.0626 | 17   | 0.6693 | 45  | 96   |
| ADRL     | 1.59  | 0.0626 | 25   | 0.9843 | 60  | 62   |
| ADRL-SV  | 1.59  | 0.0626 | 25   | 0.9843 | 60  | 88   |
| ADR-SP   | 1.595 | 0.0628 | 22   | 0.8661 | 50  | 66   |
| ADRS     | 1.60  | 0.0630 | 10   | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.60  | 0.0630 | 10   | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.60  | 0.0630 | 12   | 0.4724 | 45  | 92   |
| ASWR     | 1.60  | 0.0630 | 15   | 0.5906 | 45  | 120  |
| ADR-SV   | 1.60  | 0.0630 | 16   | 0.6299 | 45  | 82   |
| ADS      | 1.60  | 0.0630 | 18   | 0.7087 | 40  | 100  |
| V-ADS    | 1.60  | 0.0630 | 18   | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.60  | 0.0630 | 20   | 0.7874 | 50  | 96   |
| ADR      | 1.60  | 0.0630 | 22   | 0.8661 | 50  | 56   |
| ADSL     | 1.60  | 0.0630 | 24   | 0.9449 | 55  | 110  |
| ASWD     | 1.60  | 0.0630 | 24   | 0.9449 | 55  | 121  |
| ADRSL    | 1.60  | 0.0630 | 27   | 1.0630 | 60  | 60   |
| ADRSL-SV | 1.60  | 0.0630 | 27   | 1.0630 | 60  | 86   |
| ADL      | 1.60  | 0.0630 | 30   | 1.1811 | 75  | 112  |
| ADRL     | 1.60  | 0.0630 | 32   | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.60  | 0.0630 | 32   | 1.2598 | 60  | 88   |
| ADLL     | 1.60  | 0.0630 | 40   | 1.5748 | 100 | 114  |
| SXG30DN  | 1.60  | 0.0630 | 52.8 | 2.0787 | 105 | 75   |
| SXG40DN  | 1.60  | 0.0630 | 68.8 | 2.7087 | 105 | 76   |
| SXG50DN  | 1.60  | 0.0630 | 84.8 | 3.3386 | 120 | 77   |
| ADR-SP   | 1.605 | 0.0632 | 22   | 0.8661 | 50  | 66   |
| ADRS     | 1.61  | 0.0634 | 10   | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.61  | 0.0634 | 10   | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.61  | 0.0634 | 12   | 0.4724 | 45  | 92   |

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADR-SV   | 1.61  | 0.0634 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.61  | 0.0634 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.61  | 0.0634 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.61  | 0.0634 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.61  | 0.0634 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.61  | 0.0634 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.61  | 0.0634 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.615 | 0.0636 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.62  | 0.0638 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.62  | 0.0638 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.62  | 0.0638 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.62  | 0.0638 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.62  | 0.0638 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.62  | 0.0638 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.62  | 0.0638 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.62  | 0.0638 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.62  | 0.0638 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.62  | 0.0638 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.625 | 0.0640 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.63  | 0.0642 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.63  | 0.0642 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.63  | 0.0642 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.63  | 0.0642 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.63  | 0.0642 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.63  | 0.0642 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.63  | 0.0642 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.63  | 0.0642 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.63  | 0.0642 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.63  | 0.0642 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.635 | 0.0644 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.64  | 0.0646 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.64  | 0.0646 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.64  | 0.0646 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.64  | 0.0646 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.64  | 0.0646 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.64  | 0.0646 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.64  | 0.0646 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.64  | 0.0646 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.64  | 0.0646 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.64  | 0.0646 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.645 | 0.0648 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.65  | 0.0650 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.65  | 0.0650 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.65  | 0.0650 | 12 | 0.4724 | 45  | 92   |
| ASWR     | 1.65  | 0.0650 | 15 | 0.5906 | 45  | 120  |
| ADR-SV   | 1.65  | 0.0650 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.65  | 0.0650 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.65  | 0.0650 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.65  | 0.0650 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.65  | 0.0650 | 22 | 0.8661 | 50  | 56   |
| ADSL     | 1.65  | 0.0650 | 24 | 0.9449 | 55  | 110  |
| ADRSL    | 1.65  | 0.0650 | 27 | 1.0630 | 60  | 60   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series    | ØD    |        | FL |        | OAL | Page |
|-----------|-------|--------|----|--------|-----|------|
|           | mm    | inch   | mm | inch   | mm  |      |
| ADRS-L-SV | 1.65  | 0.0650 | 27 | 1.0630 | 60  | 86   |
| ADL       | 1.65  | 0.0650 | 30 | 1.1811 | 75  | 112  |
| ADRL      | 1.65  | 0.0650 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV   | 1.65  | 0.0650 | 32 | 1.2598 | 60  | 88   |
| ADLL      | 1.65  | 0.0650 | 40 | 1.5748 | 100 | 114  |
| ADR-SP    | 1.655 | 0.0652 | 22 | 0.8661 | 50  | 66   |
| ADRS      | 1.66  | 0.0654 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV   | 1.66  | 0.0654 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS   | 1.66  | 0.0654 | 12 | 0.4724 | 45  | 92   |
| ADR-SV    | 1.66  | 0.0654 | 16 | 0.6299 | 45  | 82   |
| ADS       | 1.66  | 0.0654 | 18 | 0.7087 | 40  | 100  |
| V-ADS     | 1.66  | 0.0654 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS  | 1.66  | 0.0654 | 20 | 0.7874 | 50  | 96   |
| ADR       | 1.66  | 0.0654 | 22 | 0.8661 | 50  | 56   |
| ADRL      | 1.66  | 0.0654 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV   | 1.66  | 0.0654 | 32 | 1.2598 | 60  | 88   |
| ADR-SP    | 1.665 | 0.0656 | 22 | 0.8661 | 50  | 66   |
| ADRS      | 1.67  | 0.0657 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV   | 1.67  | 0.0657 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS   | 1.67  | 0.0657 | 12 | 0.4724 | 45  | 92   |
| ADR-SV    | 1.67  | 0.0657 | 16 | 0.6299 | 45  | 82   |
| ADS       | 1.67  | 0.0657 | 18 | 0.7087 | 40  | 100  |
| V-ADS     | 1.67  | 0.0657 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS  | 1.67  | 0.0657 | 20 | 0.7874 | 50  | 96   |
| ADR       | 1.67  | 0.0657 | 22 | 0.8661 | 50  | 56   |
| ADRL      | 1.67  | 0.0657 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV   | 1.67  | 0.0657 | 32 | 1.2598 | 60  | 88   |
| ADR-SP    | 1.675 | 0.0659 | 22 | 0.8661 | 50  | 66   |
| ADRS      | 1.68  | 0.0661 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV   | 1.68  | 0.0661 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS   | 1.68  | 0.0661 | 12 | 0.4724 | 45  | 92   |
| ADR-SV    | 1.68  | 0.0661 | 16 | 0.6299 | 45  | 82   |
| ADS       | 1.68  | 0.0661 | 18 | 0.7087 | 40  | 100  |
| V-ADS     | 1.68  | 0.0661 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS  | 1.68  | 0.0661 | 20 | 0.7874 | 50  | 96   |
| ADR       | 1.68  | 0.0661 | 22 | 0.8661 | 50  | 56   |
| ADRL      | 1.68  | 0.0661 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV   | 1.68  | 0.0661 | 32 | 1.2598 | 60  | 88   |
| ADR-SP    | 1.685 | 0.0663 | 22 | 0.8661 | 50  | 66   |
| ADRS      | 1.69  | 0.0665 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV   | 1.69  | 0.0665 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS   | 1.69  | 0.0665 | 12 | 0.4724 | 45  | 92   |
| ADR-SV    | 1.69  | 0.0665 | 16 | 0.6299 | 45  | 82   |
| ADS       | 1.69  | 0.0665 | 18 | 0.7087 | 40  | 100  |
| V-ADS     | 1.69  | 0.0665 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS  | 1.69  | 0.0665 | 20 | 0.7874 | 50  | 96   |
| ADR       | 1.69  | 0.0665 | 22 | 0.8661 | 50  | 56   |
| ADRL      | 1.69  | 0.0665 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV   | 1.69  | 0.0665 | 32 | 1.2598 | 60  | 88   |
| ADR-SP    | 1.695 | 0.0667 | 22 | 0.8661 | 50  | 66   |
| ADRS      | 1.70  | 0.0669 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV   | 1.70  | 0.0669 | 10 | 0.3937 | 38  | 78   |

| Series    | ØD    |        | FL   |        | OAL | Page |
|-----------|-------|--------|------|--------|-----|------|
|           | mm    | inch   | mm   | inch   | mm  |      |
| ADR-SUS   | 1.70  | 0.0669 | 12   | 0.4724 | 45  | 92   |
| ASWR      | 1.70  | 0.0669 | 15   | 0.5906 | 45  | 120  |
| ADR-SV    | 1.70  | 0.0669 | 16   | 0.6299 | 45  | 82   |
| ADS       | 1.70  | 0.0669 | 18   | 0.7087 | 40  | 100  |
| V-ADS     | 1.70  | 0.0669 | 18   | 0.7087 | 40  | 116  |
| ADRL-SUS  | 1.70  | 0.0669 | 20   | 0.7874 | 50  | 96   |
| ADR       | 1.70  | 0.0669 | 22   | 0.8661 | 50  | 56   |
| ADSL      | 1.70  | 0.0669 | 24   | 0.9449 | 55  | 110  |
| ASWD      | 1.70  | 0.0669 | 24   | 0.9449 | 55  | 121  |
| ADRS-L    | 1.70  | 0.0669 | 27   | 1.0630 | 60  | 60   |
| ADRS-L-SV | 1.70  | 0.0669 | 27   | 1.0630 | 60  | 86   |
| ADL       | 1.70  | 0.0669 | 30   | 1.1811 | 75  | 112  |
| ADRL      | 1.70  | 0.0669 | 32   | 1.2598 | 60  | 62   |
| ADRL-SV   | 1.70  | 0.0669 | 32   | 1.2598 | 60  | 88   |
| ADLL      | 1.70  | 0.0669 | 40   | 1.5748 | 100 | 114  |
| SXG30DN   | 1.70  | 0.0669 | 56.1 | 2.2087 | 105 | 75   |
| SXG40DN   | 1.70  | 0.0669 | 73.1 | 2.8780 | 105 | 76   |
| SXG50DN   | 1.70  | 0.0669 | 90.1 | 3.5472 | 150 | 77   |
| ADR-SP    | 1.705 | 0.0671 | 22   | 0.8661 | 50  | 66   |
| ADRS      | 1.71  | 0.0673 | 10   | 0.3937 | 38  | 52   |
| ADRS-SV   | 1.71  | 0.0673 | 10   | 0.3937 | 38  | 78   |
| ADR-SUS   | 1.71  | 0.0673 | 12   | 0.4724 | 45  | 92   |
| ADR-SV    | 1.71  | 0.0673 | 16   | 0.6299 | 45  | 82   |
| ADS       | 1.71  | 0.0673 | 18   | 0.7087 | 40  | 100  |
| V-ADS     | 1.71  | 0.0673 | 18   | 0.7087 | 40  | 116  |
| ADRL-SUS  | 1.71  | 0.0673 | 20   | 0.7874 | 50  | 96   |
| ADR       | 1.71  | 0.0673 | 22   | 0.8661 | 50  | 56   |
| ADRL      | 1.71  | 0.0673 | 32   | 1.2598 | 60  | 62   |
| ADRL-SV   | 1.71  | 0.0673 | 32   | 1.2598 | 60  | 88   |
| ADR-SP    | 1.715 | 0.0675 | 22   | 0.8661 | 50  | 66   |
| ADRS      | 1.72  | 0.0677 | 10   | 0.3937 | 38  | 52   |
| ADRS-SV   | 1.72  | 0.0677 | 10   | 0.3937 | 38  | 78   |
| ADR-SUS   | 1.72  | 0.0677 | 12   | 0.4724 | 45  | 92   |
| ADR-SV    | 1.72  | 0.0677 | 16   | 0.6299 | 45  | 82   |
| ADS       | 1.72  | 0.0677 | 18   | 0.7087 | 40  | 100  |
| V-ADS     | 1.72  | 0.0677 | 18   | 0.7087 | 40  | 116  |
| ADRL-SUS  | 1.72  | 0.0677 | 20   | 0.7874 | 50  | 96   |
| ADR       | 1.72  | 0.0677 | 22   | 0.8661 | 50  | 56   |
| ADRL      | 1.72  | 0.0677 | 32   | 1.2598 | 60  | 62   |
| ADRL-SV   | 1.72  | 0.0677 | 32   | 1.2598 | 60  | 88   |
| ADR-SP    | 1.725 | 0.0679 | 22   | 0.8661 | 50  | 66   |
| ADRS      | 1.73  | 0.0681 | 10   | 0.3937 | 38  | 52   |
| ADRS-SV   | 1.73  | 0.0681 | 10   | 0.3937 | 38  | 78   |
| ADR-SUS   | 1.73  | 0.0681 | 12   | 0.4724 | 45  | 92   |
| ADR-SV    | 1.73  | 0.0681 | 16   | 0.6299 | 45  | 82   |
| ADS       | 1.73  | 0.0681 | 18   | 0.7087 | 40  | 100  |
| V-ADS     | 1.73  | 0.0681 | 18   | 0.7087 | 40  | 116  |
| ADRL-SUS  | 1.73  | 0.0681 | 20   | 0.7874 | 50  | 96   |
| ADR       | 1.73  | 0.0681 | 22   | 0.8661 | 50  | 56   |
| ADRL      | 1.73  | 0.0681 | 32   | 1.2598 | 60  | 62   |
| ADRL-SV   | 1.73  | 0.0681 | 32   | 1.2598 | 60  | 88   |
| ADR-SP    | 1.735 | 0.0683 | 22   | 0.8661 | 50  | 66   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADRS     | 1.74  | 0.0685 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.74  | 0.0685 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.74  | 0.0685 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.74  | 0.0685 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.74  | 0.0685 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.74  | 0.0685 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.74  | 0.0685 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.74  | 0.0685 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.74  | 0.0685 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.74  | 0.0685 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.745 | 0.0687 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.75  | 0.0689 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.75  | 0.0689 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.75  | 0.0689 | 12 | 0.4724 | 45  | 92   |
| ASWR     | 1.75  | 0.0689 | 15 | 0.5906 | 45  | 120  |
| ADR-SV   | 1.75  | 0.0689 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.75  | 0.0689 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.75  | 0.0689 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.75  | 0.0689 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.75  | 0.0689 | 22 | 0.8661 | 50  | 56   |
| ADSL     | 1.75  | 0.0689 | 24 | 0.9449 | 55  | 110  |
| ADRSL    | 1.75  | 0.0689 | 27 | 1.0630 | 60  | 60   |
| ADRSL-SV | 1.75  | 0.0689 | 27 | 1.0630 | 60  | 86   |
| ADL      | 1.75  | 0.0689 | 30 | 1.1811 | 75  | 112  |
| ADRL     | 1.75  | 0.0689 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.75  | 0.0689 | 32 | 1.2598 | 60  | 88   |
| ADLL     | 1.75  | 0.0689 | 40 | 1.5748 | 100 | 114  |
| ADR-SP   | 1.755 | 0.0691 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.76  | 0.0693 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.76  | 0.0693 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.76  | 0.0693 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.76  | 0.0693 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.76  | 0.0693 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.76  | 0.0693 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.76  | 0.0693 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.76  | 0.0693 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.76  | 0.0693 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.76  | 0.0693 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.765 | 0.0695 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.77  | 0.0697 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.77  | 0.0697 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.77  | 0.0697 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.77  | 0.0697 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.77  | 0.0697 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.77  | 0.0697 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.77  | 0.0697 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.77  | 0.0697 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.77  | 0.0697 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.77  | 0.0697 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.775 | 0.0699 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.78  | 0.0701 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.78  | 0.0701 | 10 | 0.3937 | 38  | 78   |

| Series   | ØD    |        | FL   |        | OAL | Page |
|----------|-------|--------|------|--------|-----|------|
|          | mm    | inch   | mm   | inch   | mm  |      |
| ADR-SUS  | 1.78  | 0.0701 | 12   | 0.4724 | 45  | 92   |
| ADR-SV   | 1.78  | 0.0701 | 16   | 0.6299 | 45  | 82   |
| ADS      | 1.78  | 0.0701 | 18   | 0.7087 | 40  | 100  |
| V-ADS    | 1.78  | 0.0701 | 18   | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.78  | 0.0701 | 20   | 0.7874 | 50  | 96   |
| ADR      | 1.78  | 0.0701 | 22   | 0.8661 | 50  | 56   |
| ADRL     | 1.78  | 0.0701 | 32   | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.78  | 0.0701 | 32   | 1.2598 | 60  | 88   |
| ADR-SP   | 1.785 | 0.0703 | 22   | 0.8661 | 50  | 66   |
| ADRS     | 1.79  | 0.0705 | 10   | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.79  | 0.0705 | 10   | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.79  | 0.0705 | 12   | 0.4724 | 45  | 92   |
| ADR-SV   | 1.79  | 0.0705 | 16   | 0.6299 | 45  | 82   |
| ADS      | 1.79  | 0.0705 | 18   | 0.7087 | 40  | 100  |
| V-ADS    | 1.79  | 0.0705 | 18   | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.79  | 0.0705 | 20   | 0.7874 | 50  | 96   |
| ADR      | 1.79  | 0.0705 | 22   | 0.8661 | 50  | 56   |
| ADRL     | 1.79  | 0.0705 | 32   | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.79  | 0.0705 | 32   | 1.2598 | 60  | 88   |
| ADR-SP   | 1.795 | 0.0707 | 22   | 0.8661 | 50  | 66   |
| ADRS     | 1.80  | 0.0709 | 10   | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.80  | 0.0709 | 10   | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.80  | 0.0709 | 12   | 0.4724 | 45  | 92   |
| ASWR     | 1.80  | 0.0709 | 15   | 0.5906 | 45  | 120  |
| ADR-SV   | 1.80  | 0.0709 | 16   | 0.6299 | 45  | 82   |
| ADS      | 1.80  | 0.0709 | 18   | 0.7087 | 40  | 100  |
| V-ADS    | 1.80  | 0.0709 | 18   | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.80  | 0.0709 | 20   | 0.7874 | 50  | 96   |
| ADR      | 1.80  | 0.0709 | 22   | 0.8661 | 50  | 56   |
| ADSL     | 1.80  | 0.0709 | 24   | 0.9449 | 55  | 110  |
| ASWD     | 1.80  | 0.0709 | 24   | 0.9449 | 55  | 121  |
| ADRSL    | 1.80  | 0.0709 | 27   | 1.0630 | 60  | 60   |
| ADRSL-SV | 1.80  | 0.0709 | 27   | 1.0630 | 60  | 86   |
| ADL      | 1.80  | 0.0709 | 30   | 1.1811 | 75  | 112  |
| ADRL     | 1.80  | 0.0709 | 32   | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.80  | 0.0709 | 32   | 1.2598 | 60  | 88   |
| ADLL     | 1.80  | 0.0709 | 40   | 1.5748 | 100 | 114  |
| SXG30DN  | 1.80  | 0.0709 | 59.4 | 2.3386 | 105 | 75   |
| SXG40DN  | 1.80  | 0.0709 | 77.4 | 3.0472 | 120 | 76   |
| SXG50DN  | 1.80  | 0.0709 | 95.4 | 3.7559 | 150 | 77   |
| ADR-SP   | 1.805 | 0.0711 | 22   | 0.8661 | 50  | 66   |
| ADRS     | 1.81  | 0.0713 | 10   | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.81  | 0.0713 | 10   | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.81  | 0.0713 | 12   | 0.4724 | 45  | 92   |
| ADR-SV   | 1.81  | 0.0713 | 16   | 0.6299 | 45  | 82   |
| ADS      | 1.81  | 0.0713 | 18   | 0.7087 | 40  | 100  |
| V-ADS    | 1.81  | 0.0713 | 18   | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.81  | 0.0713 | 20   | 0.7874 | 50  | 96   |
| ADR      | 1.81  | 0.0713 | 22   | 0.8661 | 50  | 56   |
| ADRL     | 1.81  | 0.0713 | 32   | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.81  | 0.0713 | 32   | 1.2598 | 60  | 88   |
| ADR-SP   | 1.815 | 0.0715 | 22   | 0.8661 | 50  | 66   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

Drill Selection Chart

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   |     |      |
| ADRS     | 1.82  | 0.0717 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.82  | 0.0717 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.82  | 0.0717 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.82  | 0.0717 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.82  | 0.0717 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.82  | 0.0717 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.82  | 0.0717 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.82  | 0.0717 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.82  | 0.0717 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.82  | 0.0717 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.825 | 0.0719 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.83  | 0.0720 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.83  | 0.0720 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.83  | 0.0720 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.83  | 0.0720 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.83  | 0.0720 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.83  | 0.0720 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.83  | 0.0720 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.83  | 0.0720 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.83  | 0.0720 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.83  | 0.0720 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.835 | 0.0722 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.84  | 0.0724 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.84  | 0.0724 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.84  | 0.0724 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.84  | 0.0724 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.84  | 0.0724 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.84  | 0.0724 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.84  | 0.0724 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.84  | 0.0724 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.84  | 0.0724 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.84  | 0.0724 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.845 | 0.0726 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.85  | 0.0728 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.85  | 0.0728 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.85  | 0.0728 | 12 | 0.4724 | 45  | 92   |
| ASWR     | 1.85  | 0.0728 | 15 | 0.5906 | 45  | 120  |
| ADR-SV   | 1.85  | 0.0728 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.85  | 0.0728 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.85  | 0.0728 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.85  | 0.0728 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.85  | 0.0728 | 22 | 0.8661 | 50  | 56   |
| ADSL     | 1.85  | 0.0728 | 24 | 0.9449 | 55  | 110  |
| ADRSL    | 1.85  | 0.0728 | 27 | 1.0630 | 60  | 60   |
| ADRSL-SV | 1.85  | 0.0728 | 27 | 1.0630 | 60  | 86   |
| ADL      | 1.85  | 0.0728 | 30 | 1.1811 | 75  | 112  |
| ADRL     | 1.85  | 0.0728 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.85  | 0.0728 | 32 | 1.2598 | 60  | 88   |
| ADLL     | 1.85  | 0.0728 | 40 | 1.5748 | 100 | 114  |
| ADR-SP   | 1.855 | 0.0730 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.86  | 0.0732 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.86  | 0.0732 | 10 | 0.3937 | 38  | 78   |

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   |     |      |
| ADR-SUS  | 1.86  | 0.0732 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.86  | 0.0732 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.86  | 0.0732 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.86  | 0.0732 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.86  | 0.0732 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.86  | 0.0732 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.86  | 0.0732 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.86  | 0.0732 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.865 | 0.0734 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.87  | 0.0736 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.87  | 0.0736 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.87  | 0.0736 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.87  | 0.0736 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.87  | 0.0736 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.87  | 0.0736 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.87  | 0.0736 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.87  | 0.0736 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.87  | 0.0736 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.87  | 0.0736 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.875 | 0.0738 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.88  | 0.0740 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.88  | 0.0740 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.88  | 0.0740 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.88  | 0.0740 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.88  | 0.0740 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.88  | 0.0740 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.88  | 0.0740 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.88  | 0.0740 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.88  | 0.0740 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.88  | 0.0740 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.885 | 0.0742 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.89  | 0.0744 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.89  | 0.0744 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.89  | 0.0744 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.89  | 0.0744 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.89  | 0.0744 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.89  | 0.0744 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.89  | 0.0744 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.89  | 0.0744 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.89  | 0.0744 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.89  | 0.0744 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.895 | 0.0746 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.90  | 0.0748 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.90  | 0.0748 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.90  | 0.0748 | 12 | 0.4724 | 45  | 92   |
| ASWR     | 1.90  | 0.0748 | 15 | 0.5906 | 45  | 120  |
| ADR-SV   | 1.90  | 0.0748 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.90  | 0.0748 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.90  | 0.0748 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.90  | 0.0748 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.90  | 0.0748 | 22 | 0.8661 | 50  | 56   |
| ADSL     | 1.90  | 0.0748 | 24 | 0.9449 | 55  | 110  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL    |        | OAL | Page |
|----------|-------|--------|-------|--------|-----|------|
|          | mm    | inch   | mm    | inch   | mm  |      |
| ASWD     | 1.90  | 0.0748 | 24    | 0.9449 | 55  | 121  |
| ADRSL    | 1.90  | 0.0748 | 27    | 1.0630 | 60  | 60   |
| ADRSL-SV | 1.90  | 0.0748 | 27    | 1.0630 | 60  | 86   |
| ADL      | 1.90  | 0.0748 | 30    | 1.1811 | 75  | 112  |
| ADRL     | 1.90  | 0.0748 | 32    | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.90  | 0.0748 | 32    | 1.2598 | 60  | 88   |
| ADLL     | 1.90  | 0.0748 | 40    | 1.5748 | 100 | 114  |
| SXG30DN  | 1.90  | 0.0748 | 62.7  | 2.4685 | 105 | 75   |
| SXG40DN  | 1.90  | 0.0748 | 81.7  | 3.2165 | 120 | 76   |
| SXG50DN  | 1.90  | 0.0748 | 100.7 | 3.9646 | 150 | 77   |
| ADR-SP   | 1.905 | 0.0750 | 22    | 0.8661 | 50  | 66   |
| ADRS     | 1.91  | 0.0752 | 10    | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.91  | 0.0752 | 10    | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.91  | 0.0752 | 12    | 0.4724 | 45  | 92   |
| ADR-SV   | 1.91  | 0.0752 | 16    | 0.6299 | 45  | 82   |
| ADS      | 1.91  | 0.0752 | 18    | 0.7087 | 40  | 100  |
| V-ADS    | 1.91  | 0.0752 | 18    | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.91  | 0.0752 | 20    | 0.7874 | 50  | 96   |
| ADR      | 1.91  | 0.0752 | 22    | 0.8661 | 50  | 56   |
| ADRL     | 1.91  | 0.0752 | 32    | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.91  | 0.0752 | 32    | 1.2598 | 60  | 88   |
| ADR-SP   | 1.915 | 0.0754 | 22    | 0.8661 | 50  | 66   |
| ADRS     | 1.92  | 0.0756 | 10    | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.92  | 0.0756 | 10    | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.92  | 0.0756 | 12    | 0.4724 | 45  | 92   |
| ADR-SV   | 1.92  | 0.0756 | 16    | 0.6299 | 45  | 82   |
| ADS      | 1.92  | 0.0756 | 18    | 0.7087 | 40  | 100  |
| V-ADS    | 1.92  | 0.0756 | 18    | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.92  | 0.0756 | 20    | 0.7874 | 50  | 96   |
| ADR      | 1.92  | 0.0756 | 22    | 0.8661 | 50  | 56   |
| ADRL     | 1.92  | 0.0756 | 32    | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.92  | 0.0756 | 32    | 1.2598 | 60  | 88   |
| ADR-SP   | 1.925 | 0.0758 | 22    | 0.8661 | 50  | 66   |
| ADRS     | 1.93  | 0.0760 | 10    | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.93  | 0.0760 | 10    | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.93  | 0.0760 | 12    | 0.4724 | 45  | 92   |
| ADR-SV   | 1.93  | 0.0760 | 16    | 0.6299 | 45  | 82   |
| ADS      | 1.93  | 0.0760 | 18    | 0.7087 | 40  | 100  |
| V-ADS    | 1.93  | 0.0760 | 18    | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.93  | 0.0760 | 20    | 0.7874 | 50  | 96   |
| ADR      | 1.93  | 0.0760 | 22    | 0.8661 | 50  | 56   |
| ADRL     | 1.93  | 0.0760 | 32    | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.93  | 0.0760 | 32    | 1.2598 | 60  | 88   |
| ADR-SP   | 1.935 | 0.0762 | 22    | 0.8661 | 50  | 66   |
| ADRS     | 1.94  | 0.0764 | 10    | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.94  | 0.0764 | 10    | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.94  | 0.0764 | 12    | 0.4724 | 45  | 92   |
| ADR-SV   | 1.94  | 0.0764 | 16    | 0.6299 | 45  | 82   |
| ADS      | 1.94  | 0.0764 | 18    | 0.7087 | 40  | 100  |
| V-ADS    | 1.94  | 0.0764 | 18    | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.94  | 0.0764 | 20    | 0.7874 | 50  | 96   |
| ADR      | 1.94  | 0.0764 | 22    | 0.8661 | 50  | 56   |

| Series   | ØD    |        | FL |        | OAL | Page |
|----------|-------|--------|----|--------|-----|------|
|          | mm    | inch   | mm | inch   | mm  |      |
| ADRL     | 1.94  | 0.0764 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.94  | 0.0764 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.945 | 0.0766 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.95  | 0.0768 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.95  | 0.0768 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.95  | 0.0768 | 12 | 0.4724 | 45  | 92   |
| ASWR     | 1.95  | 0.0768 | 15 | 0.5906 | 45  | 120  |
| ADR-SV   | 1.95  | 0.0768 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.95  | 0.0768 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.95  | 0.0768 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.95  | 0.0768 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.95  | 0.0768 | 22 | 0.8661 | 50  | 56   |
| ADSL     | 1.95  | 0.0768 | 24 | 0.9449 | 55  | 110  |
| ADRSL    | 1.95  | 0.0768 | 27 | 1.0630 | 60  | 60   |
| ADRSL-SV | 1.95  | 0.0768 | 27 | 1.0630 | 60  | 86   |
| ADL      | 1.95  | 0.0768 | 30 | 1.1811 | 75  | 112  |
| ADRL     | 1.95  | 0.0768 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.95  | 0.0768 | 32 | 1.2598 | 60  | 88   |
| ADLL     | 1.95  | 0.0768 | 40 | 1.5748 | 100 | 114  |
| ADR-SP   | 1.955 | 0.0770 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.96  | 0.0772 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.96  | 0.0772 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.96  | 0.0772 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.96  | 0.0772 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.96  | 0.0772 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.96  | 0.0772 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.96  | 0.0772 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.96  | 0.0772 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.96  | 0.0772 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.96  | 0.0772 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.965 | 0.0774 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.97  | 0.0776 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.97  | 0.0776 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.97  | 0.0776 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.97  | 0.0776 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.97  | 0.0776 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.97  | 0.0776 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.97  | 0.0776 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.97  | 0.0776 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.97  | 0.0776 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.97  | 0.0776 | 32 | 1.2598 | 60  | 88   |
| ADR-SP   | 1.975 | 0.0778 | 22 | 0.8661 | 50  | 66   |
| ADRS     | 1.98  | 0.0780 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.98  | 0.0780 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.98  | 0.0780 | 12 | 0.4724 | 45  | 92   |
| ADR-SV   | 1.98  | 0.0780 | 16 | 0.6299 | 45  | 82   |
| ADS      | 1.98  | 0.0780 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 1.98  | 0.0780 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.98  | 0.0780 | 20 | 0.7874 | 50  | 96   |
| ADR      | 1.98  | 0.0780 | 22 | 0.8661 | 50  | 56   |
| ADRL     | 1.98  | 0.0780 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.98  | 0.0780 | 32 | 1.2598 | 60  | 88   |



# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD    |        | FL  |        | OAL | Page |
|----------|-------|--------|-----|--------|-----|------|
|          | mm    | inch   | mm  | inch   | mm  |      |
| ADR-SP   | 1.985 | 0.0781 | 22  | 0.8661 | 50  | 66   |
| ADRS     | 1.99  | 0.0783 | 10  | 0.3937 | 38  | 52   |
| ADRS-SV  | 1.99  | 0.0783 | 10  | 0.3937 | 38  | 78   |
| ADR-SUS  | 1.99  | 0.0783 | 12  | 0.4724 | 45  | 92   |
| ADR-SV   | 1.99  | 0.0783 | 16  | 0.6299 | 45  | 82   |
| ADS      | 1.99  | 0.0783 | 18  | 0.7087 | 40  | 100  |
| V-ADS    | 1.99  | 0.0783 | 18  | 0.7087 | 40  | 116  |
| ADRL-SUS | 1.99  | 0.0783 | 20  | 0.7874 | 50  | 96   |
| ADR      | 1.99  | 0.0783 | 22  | 0.8661 | 50  | 56   |
| ADRL     | 1.99  | 0.0783 | 32  | 1.2598 | 60  | 62   |
| ADRL-SV  | 1.99  | 0.0783 | 32  | 1.2598 | 60  | 88   |
| ADR-SP   | 1.995 | 0.0785 | 22  | 0.8661 | 50  | 66   |
| ADRS     | 2.00  | 0.0787 | 10  | 0.3937 | 38  | 52   |
| ADRS-SV  | 2.00  | 0.0787 | 10  | 0.3937 | 38  | 78   |
| ADR-SUS  | 2.00  | 0.0787 | 12  | 0.4724 | 45  | 92   |
| ADS      | 2.00  | 0.0787 | 18  | 0.7087 | 40  | 100  |
| V-ADS    | 2.00  | 0.0787 | 18  | 0.7087 | 40  | 116  |
| ADRL-SUS | 2.00  | 0.0787 | 20  | 0.7874 | 50  | 96   |
| ADR      | 2.00  | 0.0787 | 22  | 0.8661 | 50  | 56   |
| ADR-SV   | 2.00  | 0.0787 | 22  | 0.8661 | 50  | 82   |
| ASWR     | 2.00  | 0.0787 | 22  | 0.8661 | 50  | 120  |
| ADSL     | 2.00  | 0.0787 | 24  | 0.9449 | 55  | 110  |
| ASWD     | 2.00  | 0.0787 | 24  | 0.9449 | 55  | 121  |
| ADRS     | 2.00  | 0.0787 | 27  | 1.0630 | 60  | 60   |
| ADRS-SV  | 2.00  | 0.0787 | 27  | 1.0630 | 60  | 86   |
| ADL      | 2.00  | 0.0787 | 30  | 1.1811 | 75  | 112  |
| ADRL     | 2.00  | 0.0787 | 32  | 1.2598 | 60  | 62   |
| ADRL-SV  | 2.00  | 0.0787 | 32  | 1.2598 | 60  | 88   |
| ADLL     | 2.00  | 0.0787 | 40  | 1.5748 | 100 | 114  |
| SXG30DN  | 2.00  | 0.0787 | 66  | 2.5984 | 105 | 75   |
| SXG40DN  | 2.00  | 0.0787 | 86  | 3.3858 | 120 | 76   |
| SXG50DN  | 2.00  | 0.0787 | 106 | 4.1732 | 150 | 77   |
| ADRS     | 2.01  | 0.0791 | 10  | 0.3937 | 38  | 52   |
| ADRS-SV  | 2.01  | 0.0791 | 10  | 0.3937 | 38  | 78   |
| ADR-SUS  | 2.01  | 0.0791 | 12  | 0.4724 | 45  | 92   |
| ADS      | 2.01  | 0.0791 | 18  | 0.7087 | 40  | 100  |
| V-ADS    | 2.01  | 0.0791 | 18  | 0.7087 | 40  | 116  |
| ADRL-SUS | 2.01  | 0.0791 | 20  | 0.7874 | 50  | 96   |
| ADR      | 2.01  | 0.0791 | 22  | 0.8661 | 50  | 56   |
| ADR-SV   | 2.01  | 0.0791 | 22  | 0.8661 | 50  | 82   |
| ADRL     | 2.01  | 0.0791 | 32  | 1.2598 | 60  | 62   |
| ADRL-SV  | 2.01  | 0.0791 | 32  | 1.2598 | 60  | 88   |
| ADRS     | 2.02  | 0.0795 | 10  | 0.3937 | 38  | 52   |
| ADRS-SV  | 2.02  | 0.0795 | 10  | 0.3937 | 38  | 78   |
| ADR-SUS  | 2.02  | 0.0795 | 12  | 0.4724 | 45  | 92   |
| ADS      | 2.02  | 0.0795 | 18  | 0.7087 | 40  | 100  |
| V-ADS    | 2.02  | 0.0795 | 18  | 0.7087 | 40  | 116  |
| ADRL-SUS | 2.02  | 0.0795 | 20  | 0.7874 | 50  | 96   |
| ADR      | 2.02  | 0.0795 | 22  | 0.8661 | 50  | 56   |
| ADR-SV   | 2.02  | 0.0795 | 22  | 0.8661 | 50  | 82   |
| ADRL     | 2.02  | 0.0795 | 32  | 1.2598 | 60  | 62   |
| ADRL-SV  | 2.02  | 0.0795 | 32  | 1.2598 | 60  | 88   |

| Series   | ØD   |        | FL |        | OAL | Page |
|----------|------|--------|----|--------|-----|------|
|          | mm   | inch   | mm | inch   | mm  |      |
| ADRS     | 2.03 | 0.0799 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 2.03 | 0.0799 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 2.03 | 0.0799 | 12 | 0.4724 | 45  | 92   |
| ADS      | 2.03 | 0.0799 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 2.03 | 0.0799 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 2.03 | 0.0799 | 20 | 0.7874 | 50  | 96   |
| ADR      | 2.03 | 0.0799 | 22 | 0.8661 | 50  | 56   |
| ADR-SV   | 2.03 | 0.0799 | 22 | 0.8661 | 50  | 82   |
| ADRL     | 2.03 | 0.0799 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 2.03 | 0.0799 | 32 | 1.2598 | 60  | 88   |
| ADRS     | 2.04 | 0.0803 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 2.04 | 0.0803 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 2.04 | 0.0803 | 12 | 0.4724 | 45  | 92   |
| ADS      | 2.04 | 0.0803 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 2.04 | 0.0803 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 2.04 | 0.0803 | 20 | 0.7874 | 50  | 96   |
| ADR      | 2.04 | 0.0803 | 22 | 0.8661 | 50  | 56   |
| ADR-SV   | 2.04 | 0.0803 | 22 | 0.8661 | 50  | 82   |
| ADRL     | 2.04 | 0.0803 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 2.04 | 0.0803 | 32 | 1.2598 | 60  | 88   |
| ADRS     | 2.05 | 0.0807 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 2.05 | 0.0807 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 2.05 | 0.0807 | 12 | 0.4724 | 45  | 92   |
| ADS      | 2.05 | 0.0807 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 2.05 | 0.0807 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 2.05 | 0.0807 | 20 | 0.7874 | 50  | 96   |
| ADR      | 2.05 | 0.0807 | 22 | 0.8661 | 50  | 56   |
| ADR-SV   | 2.05 | 0.0807 | 22 | 0.8661 | 50  | 82   |
| ASWR     | 2.05 | 0.0807 | 22 | 0.8661 | 50  | 120  |
| ADSL     | 2.05 | 0.0807 | 24 | 0.9449 | 55  | 110  |
| ADL      | 2.05 | 0.0807 | 30 | 1.1811 | 75  | 112  |
| ADRL     | 2.05 | 0.0807 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 2.05 | 0.0807 | 32 | 1.2598 | 60  | 88   |
| ADLL     | 2.05 | 0.0807 | 40 | 1.5748 | 100 | 114  |
| ADRS     | 2.06 | 0.0811 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 2.06 | 0.0811 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 2.06 | 0.0811 | 12 | 0.4724 | 45  | 92   |
| ADS      | 2.06 | 0.0811 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 2.06 | 0.0811 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 2.06 | 0.0811 | 20 | 0.7874 | 50  | 96   |
| ADR      | 2.06 | 0.0811 | 22 | 0.8661 | 50  | 56   |
| ADR-SV   | 2.06 | 0.0811 | 22 | 0.8661 | 50  | 82   |
| ADRL     | 2.06 | 0.0811 | 32 | 1.2598 | 60  | 62   |
| ADRL-SV  | 2.06 | 0.0811 | 32 | 1.2598 | 60  | 88   |
| ADRS     | 2.07 | 0.0815 | 10 | 0.3937 | 38  | 52   |
| ADRS-SV  | 2.07 | 0.0815 | 10 | 0.3937 | 38  | 78   |
| ADR-SUS  | 2.07 | 0.0815 | 12 | 0.4724 | 45  | 92   |
| ADS      | 2.07 | 0.0815 | 18 | 0.7087 | 40  | 100  |
| V-ADS    | 2.07 | 0.0815 | 18 | 0.7087 | 40  | 116  |
| ADRL-SUS | 2.07 | 0.0815 | 20 | 0.7874 | 50  | 96   |
| ADR      | 2.07 | 0.0815 | 22 | 0.8661 | 50  | 56   |
| ADR-SV   | 2.07 | 0.0815 | 22 | 0.8661 | 50  | 82   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADRL     | 2.07 | 0.0815 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.07 | 0.0815 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.08 | 0.0819 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.08 | 0.0819 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.08 | 0.0819 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.08 | 0.0819 | 18 | 0.7087 | 40     | 100  |
| V-ADS    | 2.08 | 0.0819 | 18 | 0.7087 | 40     | 116  |
| ADR-SUS  | 2.08 | 0.0819 | 20 | 0.7874 | 50     | 96   |
| ADR      | 2.08 | 0.0819 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.08 | 0.0819 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.08 | 0.0819 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.08 | 0.0819 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.09 | 0.0823 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.09 | 0.0823 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.09 | 0.0823 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.09 | 0.0823 | 18 | 0.7087 | 40     | 100  |
| V-ADS    | 2.09 | 0.0823 | 18 | 0.7087 | 40     | 116  |
| ADR-SUS  | 2.09 | 0.0823 | 20 | 0.7874 | 50     | 96   |
| ADR      | 2.09 | 0.0823 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.09 | 0.0823 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.09 | 0.0823 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.09 | 0.0823 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.10 | 0.0827 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.10 | 0.0827 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.10 | 0.0827 | 12 | 0.4724 | 45     | 92   |
| ADRL-SUS | 2.10 | 0.0827 | 20 | 0.7874 | 50     | 96   |
| ADS      | 2.10 | 0.0827 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.10 | 0.0827 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.10 | 0.0827 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.10 | 0.0827 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.10 | 0.0827 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.10 | 0.0827 | 24 | 0.9449 | 55     | 110  |
| ASWD     | 2.10 | 0.0827 | 24 | 0.9449 | 55     | 121  |
| ADL      | 2.10 | 0.0827 | 30 | 1.1811 | 75     | 112  |
| ADRL     | 2.10 | 0.0827 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.10 | 0.0827 | 32 | 1.2598 | 60     | 88   |
| ADLL     | 2.10 | 0.0827 | 40 | 1.5748 | 100    | 114  |
| ADRS     | 2.11 | 0.0831 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.11 | 0.0831 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.11 | 0.0831 | 12 | 0.4724 | 45     | 92   |
| ADRL-SUS | 2.11 | 0.0831 | 20 | 0.7874 | 50     | 96   |
| ADS      | 2.11 | 0.0831 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.11 | 0.0831 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.11 | 0.0831 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.11 | 0.0831 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.11 | 0.0831 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.11 | 0.0831 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.12 | 0.0835 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.12 | 0.0835 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.12 | 0.0835 | 12 | 0.4724 | 45     | 92   |
| ADRL-SUS | 2.12 | 0.0835 | 20 | 0.7874 | 50     | 96   |
| ADS      | 2.12 | 0.0835 | 20 | 0.7874 | 40(45) | 100  |

\* Overall length is being changed to figures in parentheses.

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| V-ADS    | 2.12 | 0.0835 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.12 | 0.0835 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.12 | 0.0835 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.12 | 0.0835 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.12 | 0.0835 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.13 | 0.0839 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.13 | 0.0839 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.13 | 0.0839 | 12 | 0.4724 | 45     | 92   |
| ADRL-SUS | 2.13 | 0.0839 | 20 | 0.7874 | 50     | 96   |
| ADS      | 2.13 | 0.0839 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.13 | 0.0839 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.13 | 0.0839 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.13 | 0.0839 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.13 | 0.0839 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.13 | 0.0839 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.14 | 0.0843 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.14 | 0.0843 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.14 | 0.0843 | 12 | 0.4724 | 45     | 92   |
| ADRL-SUS | 2.14 | 0.0843 | 20 | 0.7874 | 50     | 96   |
| ADS      | 2.14 | 0.0843 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.14 | 0.0843 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.14 | 0.0843 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.14 | 0.0843 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.14 | 0.0843 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.14 | 0.0843 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.15 | 0.0846 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.15 | 0.0846 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.15 | 0.0846 | 12 | 0.4724 | 45     | 92   |
| ADRL-SUS | 2.15 | 0.0846 | 20 | 0.7874 | 50     | 96   |
| ADS      | 2.15 | 0.0846 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.15 | 0.0846 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.15 | 0.0846 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.15 | 0.0846 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.15 | 0.0846 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.15 | 0.0846 | 24 | 0.9449 | 55     | 110  |
| ADL      | 2.15 | 0.0846 | 30 | 1.1811 | 75     | 112  |
| ADRL     | 2.15 | 0.0846 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.15 | 0.0846 | 32 | 1.2598 | 60     | 88   |
| ADLL     | 2.15 | 0.0846 | 40 | 1.5748 | 100    | 114  |
| ADRS     | 2.16 | 0.0850 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.16 | 0.0850 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.16 | 0.0850 | 12 | 0.4724 | 45     | 92   |
| ADRL-SUS | 2.16 | 0.0850 | 20 | 0.7874 | 50     | 96   |
| ADS      | 2.16 | 0.0850 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.16 | 0.0850 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.16 | 0.0850 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.16 | 0.0850 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.16 | 0.0850 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.16 | 0.0850 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.17 | 0.0854 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.17 | 0.0854 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.17 | 0.0854 | 12 | 0.4724 | 45     | 92   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADRL-SUS | 2.17 | 0.0854 | 20 | 0.7874 | 50     | 96   |
| ADS      | 2.17 | 0.0854 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.17 | 0.0854 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.17 | 0.0854 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.17 | 0.0854 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.17 | 0.0854 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.17 | 0.0854 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.18 | 0.0858 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.18 | 0.0858 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.18 | 0.0858 | 12 | 0.4724 | 45     | 92   |
| ADRL-SUS | 2.18 | 0.0858 | 20 | 0.7874 | 50     | 96   |
| ADS      | 2.18 | 0.0858 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.18 | 0.0858 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.18 | 0.0858 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.18 | 0.0858 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.18 | 0.0858 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.18 | 0.0858 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.19 | 0.0862 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.19 | 0.0862 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.19 | 0.0862 | 12 | 0.4724 | 45     | 92   |
| ADRL-SUS | 2.19 | 0.0862 | 20 | 0.7874 | 50     | 96   |
| ADS      | 2.19 | 0.0862 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.19 | 0.0862 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.19 | 0.0862 | 22 | 0.8661 | 50     | 56   |
| ADR-SV   | 2.19 | 0.0862 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.19 | 0.0862 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.19 | 0.0862 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.20 | 0.0866 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.20 | 0.0866 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.20 | 0.0866 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.20 | 0.0866 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.20 | 0.0866 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.20 | 0.0866 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.20 | 0.0866 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.20 | 0.0866 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.20 | 0.0866 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.20 | 0.0866 | 26 | 1.0236 | 58(65) | 110  |
| ASWD     | 2.20 | 0.0866 | 26 | 1.0236 | 58(65) | 121  |
| ADL      | 2.20 | 0.0866 | 30 | 1.1811 | 75     | 112  |
| ADRL     | 2.20 | 0.0866 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.20 | 0.0866 | 32 | 1.2598 | 60     | 88   |
| ADLL     | 2.20 | 0.0866 | 40 | 1.5748 | 100    | 114  |
| ADRS     | 2.21 | 0.0870 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.21 | 0.0870 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.21 | 0.0870 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.21 | 0.0870 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.21 | 0.0870 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.21 | 0.0870 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.21 | 0.0870 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.21 | 0.0870 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.21 | 0.0870 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.21 | 0.0870 | 32 | 1.2598 | 60     | 88   |

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADRS     | 2.22 | 0.0874 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.22 | 0.0874 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.22 | 0.0874 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.22 | 0.0874 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.22 | 0.0874 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.22 | 0.0874 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.22 | 0.0874 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.22 | 0.0874 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.22 | 0.0874 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.22 | 0.0874 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.23 | 0.0878 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.23 | 0.0878 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.23 | 0.0878 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.23 | 0.0878 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.23 | 0.0878 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.23 | 0.0878 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.23 | 0.0878 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.23 | 0.0878 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.23 | 0.0878 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.23 | 0.0878 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.24 | 0.0882 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.24 | 0.0882 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.24 | 0.0882 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.24 | 0.0882 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.24 | 0.0882 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.24 | 0.0882 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.24 | 0.0882 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.24 | 0.0882 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.24 | 0.0882 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.24 | 0.0882 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.25 | 0.0886 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.25 | 0.0886 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.25 | 0.0886 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.25 | 0.0886 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.25 | 0.0886 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.25 | 0.0886 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.25 | 0.0886 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.25 | 0.0886 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.25 | 0.0886 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.25 | 0.0886 | 26 | 1.0236 | 58(65) | 110  |
| ADL      | 2.25 | 0.0886 | 30 | 1.1811 | 75     | 112  |
| ADRL     | 2.25 | 0.0886 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.25 | 0.0886 | 32 | 1.2598 | 60     | 88   |
| ADLL     | 2.25 | 0.0886 | 40 | 1.5748 | 100    | 114  |
| ADRS     | 2.26 | 0.0890 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.26 | 0.0890 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.26 | 0.0890 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.26 | 0.0890 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.26 | 0.0890 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.26 | 0.0890 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.26 | 0.0890 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.26 | 0.0890 | 22 | 0.8661 | 50     | 82   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADRL     | 2.26 | 0.0890 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.26 | 0.0890 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.27 | 0.0894 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.27 | 0.0894 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.27 | 0.0894 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.27 | 0.0894 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.27 | 0.0894 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.27 | 0.0894 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.27 | 0.0894 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.27 | 0.0894 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.27 | 0.0894 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.27 | 0.0894 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.28 | 0.0898 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.28 | 0.0898 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.28 | 0.0898 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.28 | 0.0898 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.28 | 0.0898 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.28 | 0.0898 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.28 | 0.0898 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.28 | 0.0898 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.28 | 0.0898 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.28 | 0.0898 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.29 | 0.0902 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.29 | 0.0902 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.29 | 0.0902 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.29 | 0.0902 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.29 | 0.0902 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.29 | 0.0902 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.29 | 0.0902 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.29 | 0.0902 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.29 | 0.0902 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.29 | 0.0902 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.30 | 0.0906 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.30 | 0.0906 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.30 | 0.0906 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.30 | 0.0906 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.30 | 0.0906 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.30 | 0.0906 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.30 | 0.0906 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.30 | 0.0906 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.30 | 0.0906 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.30 | 0.0906 | 26 | 1.0236 | 58(65) | 110  |
| ASWD     | 2.30 | 0.0906 | 26 | 1.0236 | 58(65) | 121  |
| ADL      | 2.30 | 0.0906 | 30 | 1.1811 | 75     | 112  |
| ADRL     | 2.30 | 0.0906 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.30 | 0.0906 | 32 | 1.2598 | 60     | 88   |
| ADLL     | 2.30 | 0.0906 | 40 | 1.5748 | 100    | 114  |
| ADRS     | 2.31 | 0.0909 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.31 | 0.0909 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.31 | 0.0909 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.31 | 0.0909 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.31 | 0.0909 | 20 | 0.7874 | 40(45) | 116  |

\* Overall length is being changed to figures in parentheses.

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADR      | 2.31 | 0.0909 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.31 | 0.0909 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.31 | 0.0909 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.31 | 0.0909 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.31 | 0.0909 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.32 | 0.0913 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.32 | 0.0913 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.32 | 0.0913 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.32 | 0.0913 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.32 | 0.0913 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.32 | 0.0913 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.32 | 0.0913 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.32 | 0.0913 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.32 | 0.0913 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.32 | 0.0913 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.33 | 0.0917 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.33 | 0.0917 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.33 | 0.0917 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.33 | 0.0917 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.33 | 0.0917 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.33 | 0.0917 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.33 | 0.0917 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.33 | 0.0917 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.33 | 0.0917 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.33 | 0.0917 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.34 | 0.0921 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.34 | 0.0921 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.34 | 0.0921 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.34 | 0.0921 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.34 | 0.0921 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.34 | 0.0921 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.34 | 0.0921 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.34 | 0.0921 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.34 | 0.0921 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.34 | 0.0921 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.35 | 0.0925 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.35 | 0.0925 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.35 | 0.0925 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.35 | 0.0925 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.35 | 0.0925 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.35 | 0.0925 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.35 | 0.0925 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.35 | 0.0925 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.35 | 0.0925 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.35 | 0.0925 | 26 | 1.0236 | 58(65) | 110  |
| ADL      | 2.35 | 0.0925 | 30 | 1.1811 | 75     | 112  |
| ADRL     | 2.35 | 0.0925 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.35 | 0.0925 | 32 | 1.2598 | 60     | 88   |
| ADLL     | 2.35 | 0.0925 | 40 | 1.5748 | 100    | 114  |
| ADRS     | 2.36 | 0.0929 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.36 | 0.0929 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.36 | 0.0929 | 12 | 0.4724 | 45     | 92   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADS      | 2.36 | 0.0929 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.36 | 0.0929 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.36 | 0.0929 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.36 | 0.0929 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.36 | 0.0929 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.36 | 0.0929 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.36 | 0.0929 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.37 | 0.0933 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.37 | 0.0933 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.37 | 0.0933 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.37 | 0.0933 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.37 | 0.0933 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.37 | 0.0933 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.37 | 0.0933 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.37 | 0.0933 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.37 | 0.0933 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.37 | 0.0933 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.38 | 0.0937 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.38 | 0.0937 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.38 | 0.0937 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.38 | 0.0937 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.38 | 0.0937 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.38 | 0.0937 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.38 | 0.0937 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.38 | 0.0937 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.38 | 0.0937 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.38 | 0.0937 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.39 | 0.0941 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.39 | 0.0941 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.39 | 0.0941 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.39 | 0.0941 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.39 | 0.0941 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.39 | 0.0941 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.39 | 0.0941 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.39 | 0.0941 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.39 | 0.0941 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.39 | 0.0941 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.40 | 0.0945 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.40 | 0.0945 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.40 | 0.0945 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.40 | 0.0945 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.40 | 0.0945 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.40 | 0.0945 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.40 | 0.0945 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.40 | 0.0945 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.40 | 0.0945 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.40 | 0.0945 | 26 | 1.0236 | 61(65) | 110  |
| ASWD     | 2.40 | 0.0945 | 26 | 1.0236 | 61(65) | 121  |
| ADRL     | 2.40 | 0.0945 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.40 | 0.0945 | 32 | 1.2598 | 60     | 88   |
| ADL      | 2.40 | 0.0945 | 35 | 1.3780 | 100    | 112  |
| ADLL     | 2.40 | 0.0945 | 50 | 1.9685 | 150    | 114  |

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADRS     | 2.41 | 0.0949 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.41 | 0.0949 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.41 | 0.0949 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.41 | 0.0949 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.41 | 0.0949 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.41 | 0.0949 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.41 | 0.0949 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.41 | 0.0949 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.41 | 0.0949 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.41 | 0.0949 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.42 | 0.0953 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.42 | 0.0953 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.42 | 0.0953 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.42 | 0.0953 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.42 | 0.0953 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.42 | 0.0953 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.42 | 0.0953 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.42 | 0.0953 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.42 | 0.0953 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.42 | 0.0953 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.43 | 0.0957 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.43 | 0.0957 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.43 | 0.0957 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.43 | 0.0957 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.43 | 0.0957 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.43 | 0.0957 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.43 | 0.0957 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.43 | 0.0957 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.43 | 0.0957 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.43 | 0.0957 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.44 | 0.0961 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.44 | 0.0961 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.44 | 0.0961 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.44 | 0.0961 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.44 | 0.0961 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.44 | 0.0961 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.44 | 0.0961 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.44 | 0.0961 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.44 | 0.0961 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.44 | 0.0961 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.45 | 0.0965 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.45 | 0.0965 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.45 | 0.0965 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.45 | 0.0965 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.45 | 0.0965 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.45 | 0.0965 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.45 | 0.0965 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.45 | 0.0965 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.45 | 0.0965 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.45 | 0.0965 | 26 | 1.0236 | 61(65) | 110  |
| ADRL     | 2.45 | 0.0965 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.45 | 0.0965 | 32 | 1.2598 | 60     | 88   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADL      | 2.45 | 0.0965 | 35 | 1.3780 | 100    | 112  |
| ADLL     | 2.45 | 0.0965 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.46 | 0.0969 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.46 | 0.0969 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.46 | 0.0969 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.46 | 0.0969 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.46 | 0.0969 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.46 | 0.0969 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.46 | 0.0969 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.46 | 0.0969 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.46 | 0.0969 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.46 | 0.0969 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.47 | 0.0972 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.47 | 0.0972 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.47 | 0.0972 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.47 | 0.0972 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.47 | 0.0972 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.47 | 0.0972 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.47 | 0.0972 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.47 | 0.0972 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.47 | 0.0972 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.47 | 0.0972 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.48 | 0.0976 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.48 | 0.0976 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.48 | 0.0976 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.48 | 0.0976 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.48 | 0.0976 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.48 | 0.0976 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.48 | 0.0976 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.48 | 0.0976 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.48 | 0.0976 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.48 | 0.0976 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.49 | 0.0980 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.49 | 0.0980 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.49 | 0.0980 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.49 | 0.0980 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.49 | 0.0980 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.49 | 0.0980 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.49 | 0.0980 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.49 | 0.0980 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.49 | 0.0980 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.49 | 0.0980 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.50 | 0.0984 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.50 | 0.0984 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.50 | 0.0984 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.50 | 0.0984 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.50 | 0.0984 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.50 | 0.0984 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.50 | 0.0984 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.50 | 0.0984 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.50 | 0.0984 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.50 | 0.0984 | 26 | 1.0236 | 61(65) | 110  |

\* Overall length is being changed to figures in parentheses.

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ASWD     | 2.50 | 0.0984 | 26 | 1.0236 | 61(65) | 121  |
| ADRS     | 2.50 | 0.0984 | 27 | 1.0630 | 60     | 60   |
| ADRS-SV  | 2.50 | 0.0984 | 27 | 1.0630 | 60     | 86   |
| ADRL     | 2.50 | 0.0984 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.50 | 0.0984 | 32 | 1.2598 | 60     | 88   |
| ADL      | 2.50 | 0.0984 | 35 | 1.3780 | 100    | 112  |
| ADLL     | 2.50 | 0.0984 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.51 | 0.0988 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.51 | 0.0988 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.51 | 0.0988 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.51 | 0.0988 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.51 | 0.0988 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.51 | 0.0988 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.51 | 0.0988 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.51 | 0.0988 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.51 | 0.0988 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.51 | 0.0988 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.52 | 0.0992 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.52 | 0.0992 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.52 | 0.0992 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.52 | 0.0992 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.52 | 0.0992 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.52 | 0.0992 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.52 | 0.0992 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.52 | 0.0992 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.52 | 0.0992 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.52 | 0.0992 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.53 | 0.0996 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.53 | 0.0996 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.53 | 0.0996 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.53 | 0.0996 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.53 | 0.0996 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.53 | 0.0996 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.53 | 0.0996 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.53 | 0.0996 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.53 | 0.0996 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.53 | 0.0996 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.54 | 0.1000 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.54 | 0.1000 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.54 | 0.1000 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.54 | 0.1000 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.54 | 0.1000 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.54 | 0.1000 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.54 | 0.1000 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.54 | 0.1000 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.54 | 0.1000 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.54 | 0.1000 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.55 | 0.1004 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.55 | 0.1004 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.55 | 0.1004 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.55 | 0.1004 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.55 | 0.1004 | 20 | 0.7874 | 40(45) | 116  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADR      | 2.55 | 0.1004 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.55 | 0.1004 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.55 | 0.1004 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.55 | 0.1004 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.55 | 0.1004 | 26 | 1.0236 | 61(65) | 110  |
| ADRL     | 2.55 | 0.1004 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.55 | 0.1004 | 32 | 1.2598 | 60     | 88   |
| ADL      | 2.55 | 0.1004 | 35 | 1.3780 | 100    | 112  |
| ADLL     | 2.55 | 0.1004 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.56 | 0.1008 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.56 | 0.1008 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.56 | 0.1008 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.56 | 0.1008 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.56 | 0.1008 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.56 | 0.1008 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.56 | 0.1008 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.56 | 0.1008 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.56 | 0.1008 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.56 | 0.1008 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.57 | 0.1012 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.57 | 0.1012 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.57 | 0.1012 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.57 | 0.1012 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.57 | 0.1012 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.57 | 0.1012 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.57 | 0.1012 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.57 | 0.1012 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.57 | 0.1012 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.57 | 0.1012 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.58 | 0.1016 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.58 | 0.1016 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.58 | 0.1016 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.58 | 0.1016 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.58 | 0.1016 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.58 | 0.1016 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.58 | 0.1016 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.58 | 0.1016 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.58 | 0.1016 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.58 | 0.1016 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.59 | 0.1020 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.59 | 0.1020 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.59 | 0.1020 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.59 | 0.1020 | 20 | 0.7874 | 40(45) | 100  |
| V-ADS    | 2.59 | 0.1020 | 20 | 0.7874 | 40(45) | 116  |
| ADR      | 2.59 | 0.1020 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.59 | 0.1020 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.59 | 0.1020 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.59 | 0.1020 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.59 | 0.1020 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.60 | 0.1024 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.60 | 0.1024 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.60 | 0.1024 | 12 | 0.4724 | 45     | 92   |

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADS      | 2.60 | 0.1024 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.60 | 0.1024 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.60 | 0.1024 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.60 | 0.1024 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.60 | 0.1024 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.60 | 0.1024 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.60 | 0.1024 | 28 | 1.1024 | 64(65) | 110  |
| ASWD     | 2.60 | 0.1024 | 28 | 1.1024 | 64(65) | 121  |
| ADRL     | 2.60 | 0.1024 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.60 | 0.1024 | 32 | 1.2598 | 60     | 88   |
| ADL      | 2.60 | 0.1024 | 35 | 1.3780 | 100    | 112  |
| ADLL     | 2.60 | 0.1024 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.61 | 0.1028 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.61 | 0.1028 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.61 | 0.1028 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.61 | 0.1028 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.61 | 0.1028 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.61 | 0.1028 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.61 | 0.1028 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.61 | 0.1028 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.61 | 0.1028 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.61 | 0.1028 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.62 | 0.1031 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.62 | 0.1031 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.62 | 0.1031 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.62 | 0.1031 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.62 | 0.1031 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.62 | 0.1031 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.62 | 0.1031 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.62 | 0.1031 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.62 | 0.1031 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.62 | 0.1031 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.63 | 0.1035 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.63 | 0.1035 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.63 | 0.1035 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.63 | 0.1035 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.63 | 0.1035 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.63 | 0.1035 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.63 | 0.1035 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.63 | 0.1035 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.63 | 0.1035 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.63 | 0.1035 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.64 | 0.1039 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.64 | 0.1039 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.64 | 0.1039 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.64 | 0.1039 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.64 | 0.1039 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.64 | 0.1039 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.64 | 0.1039 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.64 | 0.1039 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.64 | 0.1039 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.64 | 0.1039 | 32 | 1.2598 | 60     | 88   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADRS     | 2.65 | 0.1043 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.65 | 0.1043 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.65 | 0.1043 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.65 | 0.1043 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.65 | 0.1043 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.65 | 0.1043 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.65 | 0.1043 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.65 | 0.1043 | 22 | 0.8661 | 50     | 82   |
| ASWR     | 2.65 | 0.1043 | 22 | 0.8661 | 50     | 120  |
| ADSL     | 2.65 | 0.1043 | 28 | 1.1024 | 64(65) | 110  |
| ADRL     | 2.65 | 0.1043 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.65 | 0.1043 | 32 | 1.2598 | 60     | 88   |
| ADL      | 2.65 | 0.1043 | 35 | 1.3780 | 100    | 112  |
| ADLL     | 2.65 | 0.1043 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.66 | 0.1047 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.66 | 0.1047 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.66 | 0.1047 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.66 | 0.1047 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.66 | 0.1047 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.66 | 0.1047 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.66 | 0.1047 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.66 | 0.1047 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.66 | 0.1047 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.66 | 0.1047 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.67 | 0.1051 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.67 | 0.1051 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.67 | 0.1051 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.67 | 0.1051 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.67 | 0.1051 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.67 | 0.1051 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.67 | 0.1051 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.67 | 0.1051 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.67 | 0.1051 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.67 | 0.1051 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.68 | 0.1055 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.68 | 0.1055 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.68 | 0.1055 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.68 | 0.1055 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.68 | 0.1055 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.68 | 0.1055 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.68 | 0.1055 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.68 | 0.1055 | 22 | 0.8661 | 50     | 82   |
| ADRL     | 2.68 | 0.1055 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.68 | 0.1055 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.69 | 0.1059 | 10 | 0.3937 | 38     | 52   |
| ADRS-SV  | 2.69 | 0.1059 | 10 | 0.3937 | 38     | 78   |
| ADR-SUS  | 2.69 | 0.1059 | 12 | 0.4724 | 45     | 92   |
| ADS      | 2.69 | 0.1059 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.69 | 0.1059 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.69 | 0.1059 | 22 | 0.8661 | 50     | 56   |
| ADRL-SUS | 2.69 | 0.1059 | 22 | 0.8661 | 50     | 96   |
| ADR-SV   | 2.69 | 0.1059 | 22 | 0.8661 | 50     | 82   |

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADRL     | 2.69 | 0.1059 | 32 | 1.2598 | 60     | 62   |
| ADRL-SV  | 2.69 | 0.1059 | 32 | 1.2598 | 60     | 88   |
| ADRS     | 2.70 | 0.1063 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.70 | 0.1063 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.70 | 0.1063 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.70 | 0.1063 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.70 | 0.1063 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.70 | 0.1063 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.70 | 0.1063 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.70 | 0.1063 | 25 | 0.9843 | 50     | 82   |
| ASWR     | 2.70 | 0.1063 | 25 | 0.9843 | 50     | 120  |
| ADSL     | 2.70 | 0.1063 | 28 | 1.1024 | 64(65) | 110  |
| ASWD     | 2.70 | 0.1063 | 28 | 1.1024 | 64(65) | 121  |
| ADL      | 2.70 | 0.1063 | 35 | 1.3780 | 100    | 112  |
| ADRL     | 2.70 | 0.1063 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.70 | 0.1063 | 40 | 1.5748 | 65     | 88   |
| ADLL     | 2.70 | 0.1063 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.71 | 0.1067 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.71 | 0.1067 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.71 | 0.1067 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.71 | 0.1067 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.71 | 0.1067 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.71 | 0.1067 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.71 | 0.1067 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.71 | 0.1067 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.71 | 0.1067 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.71 | 0.1067 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.72 | 0.1071 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.72 | 0.1071 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.72 | 0.1071 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.72 | 0.1071 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.72 | 0.1071 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.72 | 0.1071 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.72 | 0.1071 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.72 | 0.1071 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.72 | 0.1071 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.72 | 0.1071 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.73 | 0.1075 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.73 | 0.1075 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.73 | 0.1075 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.73 | 0.1075 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.73 | 0.1075 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.73 | 0.1075 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.73 | 0.1075 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.73 | 0.1075 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.73 | 0.1075 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.73 | 0.1075 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.74 | 0.1079 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.74 | 0.1079 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.74 | 0.1079 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.74 | 0.1079 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.74 | 0.1079 | 20 | 0.7874 | 45     | 116  |

\* Overall length is being changed to figures in parentheses.



# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADR      | 2.74 | 0.1079 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.74 | 0.1079 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.74 | 0.1079 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.74 | 0.1079 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.74 | 0.1079 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.75 | 0.1083 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.75 | 0.1083 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.75 | 0.1083 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.75 | 0.1083 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.75 | 0.1083 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.75 | 0.1083 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.75 | 0.1083 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.75 | 0.1083 | 25 | 0.9843 | 50     | 82   |
| ASWR     | 2.75 | 0.1083 | 25 | 0.9843 | 50     | 120  |
| ADSL     | 2.75 | 0.1083 | 28 | 1.1024 | 64(65) | 110  |
| ADL      | 2.75 | 0.1083 | 35 | 1.3780 | 100    | 112  |
| ADRL     | 2.75 | 0.1083 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.75 | 0.1083 | 40 | 1.5748 | 65     | 88   |
| ADLL     | 2.75 | 0.1083 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.76 | 0.1087 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.76 | 0.1087 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.76 | 0.1087 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.76 | 0.1087 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.76 | 0.1087 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.76 | 0.1087 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.76 | 0.1087 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.76 | 0.1087 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.76 | 0.1087 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.76 | 0.1087 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.77 | 0.1091 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.77 | 0.1091 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.77 | 0.1091 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.77 | 0.1091 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.77 | 0.1091 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.77 | 0.1091 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.77 | 0.1091 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.77 | 0.1091 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.77 | 0.1091 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.77 | 0.1091 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.78 | 0.1094 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.78 | 0.1094 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.78 | 0.1094 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.78 | 0.1094 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.78 | 0.1094 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.78 | 0.1094 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.78 | 0.1094 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.78 | 0.1094 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.78 | 0.1094 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.78 | 0.1094 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.79 | 0.1098 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.79 | 0.1098 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.79 | 0.1098 | 15 | 0.5906 | 45     | 92   |

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADS      | 2.79 | 0.1098 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.79 | 0.1098 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.79 | 0.1098 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.79 | 0.1098 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.79 | 0.1098 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.79 | 0.1098 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.79 | 0.1098 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.80 | 0.1102 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.80 | 0.1102 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.80 | 0.1102 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.80 | 0.1102 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.80 | 0.1102 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.80 | 0.1102 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.80 | 0.1102 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.80 | 0.1102 | 25 | 0.9843 | 50     | 82   |
| ASWR     | 2.80 | 0.1102 | 25 | 0.9843 | 50     | 120  |
| ADSL     | 2.80 | 0.1102 | 30 | 1.1811 | 67(75) | 110  |
| ASWD     | 2.80 | 0.1102 | 30 | 1.1811 | 67(75) | 121  |
| ADL      | 2.80 | 0.1102 | 35 | 1.3780 | 100    | 112  |
| ADRL     | 2.80 | 0.1102 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.80 | 0.1102 | 40 | 1.5748 | 65     | 88   |
| ADLL     | 2.80 | 0.1102 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.81 | 0.1106 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.81 | 0.1106 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.81 | 0.1106 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.81 | 0.1106 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.81 | 0.1106 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.81 | 0.1106 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.81 | 0.1106 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.81 | 0.1106 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.81 | 0.1106 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.81 | 0.1106 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.82 | 0.1110 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.82 | 0.1110 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.82 | 0.1110 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.82 | 0.1110 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.82 | 0.1110 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.82 | 0.1110 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.82 | 0.1110 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.82 | 0.1110 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.82 | 0.1110 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.82 | 0.1110 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.83 | 0.1114 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.83 | 0.1114 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.83 | 0.1114 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.83 | 0.1114 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.83 | 0.1114 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.83 | 0.1114 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.83 | 0.1114 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.83 | 0.1114 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.83 | 0.1114 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.83 | 0.1114 | 40 | 1.5748 | 65     | 88   |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADRS     | 2.84 | 0.1118 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.84 | 0.1118 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.84 | 0.1118 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.84 | 0.1118 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.84 | 0.1118 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.84 | 0.1118 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.84 | 0.1118 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.84 | 0.1118 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.84 | 0.1118 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.84 | 0.1118 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.85 | 0.1122 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.85 | 0.1122 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.85 | 0.1122 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.85 | 0.1122 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.85 | 0.1122 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.85 | 0.1122 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.85 | 0.1122 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.85 | 0.1122 | 25 | 0.9843 | 50     | 82   |
| ASWR     | 2.85 | 0.1122 | 25 | 0.9843 | 50     | 120  |
| ADSL     | 2.85 | 0.1122 | 30 | 1.1811 | 67(75) | 110  |
| ADL      | 2.85 | 0.1122 | 35 | 1.3780 | 100    | 112  |
| ADRL     | 2.85 | 0.1122 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.85 | 0.1122 | 40 | 1.5748 | 65     | 88   |
| ADLL     | 2.85 | 0.1122 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.86 | 0.1126 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.86 | 0.1126 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.86 | 0.1126 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.86 | 0.1126 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.86 | 0.1126 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.86 | 0.1126 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.86 | 0.1126 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.86 | 0.1126 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.86 | 0.1126 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.86 | 0.1126 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.87 | 0.1130 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.87 | 0.1130 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.87 | 0.1130 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.87 | 0.1130 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.87 | 0.1130 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.87 | 0.1130 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.87 | 0.1130 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.87 | 0.1130 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.87 | 0.1130 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.87 | 0.1130 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.88 | 0.1134 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.88 | 0.1134 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.88 | 0.1134 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.88 | 0.1134 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.88 | 0.1134 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.88 | 0.1134 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.88 | 0.1134 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.88 | 0.1134 | 25 | 0.9843 | 50     | 82   |

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADRL     | 2.88 | 0.1134 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.88 | 0.1134 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.89 | 0.1138 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.89 | 0.1138 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.89 | 0.1138 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.89 | 0.1138 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.89 | 0.1138 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.89 | 0.1138 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.89 | 0.1138 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.89 | 0.1138 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.89 | 0.1138 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.89 | 0.1138 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.90 | 0.1142 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.90 | 0.1142 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.90 | 0.1142 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.90 | 0.1142 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.90 | 0.1142 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.90 | 0.1142 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.90 | 0.1142 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.90 | 0.1142 | 25 | 0.9843 | 50     | 82   |
| ASWR     | 2.90 | 0.1142 | 25 | 0.9843 | 50     | 120  |
| ADSL     | 2.90 | 0.1142 | 30 | 1.1811 | 71(75) | 110  |
| ASWD     | 2.90 | 0.1142 | 30 | 1.1811 | 71(75) | 121  |
| ADL      | 2.90 | 0.1142 | 35 | 1.3780 | 100    | 112  |
| ADRL     | 2.90 | 0.1142 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.90 | 0.1142 | 40 | 1.5748 | 65     | 88   |
| ADLL     | 2.90 | 0.1142 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.91 | 0.1146 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.91 | 0.1146 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.91 | 0.1146 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.91 | 0.1146 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.91 | 0.1146 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.91 | 0.1146 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.91 | 0.1146 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.91 | 0.1146 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.91 | 0.1146 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.91 | 0.1146 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.92 | 0.1150 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.92 | 0.1150 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.92 | 0.1150 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.92 | 0.1150 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.92 | 0.1150 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.92 | 0.1150 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.92 | 0.1150 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.92 | 0.1150 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.92 | 0.1150 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.92 | 0.1150 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.93 | 0.1154 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.93 | 0.1154 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.93 | 0.1154 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.93 | 0.1154 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.93 | 0.1154 | 20 | 0.7874 | 45     | 116  |

\* Overall length is being changed to figures in parentheses.

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADR      | 2.93 | 0.1154 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.93 | 0.1154 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.93 | 0.1154 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.93 | 0.1154 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.93 | 0.1154 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.94 | 0.1157 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.94 | 0.1157 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.94 | 0.1157 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.94 | 0.1157 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.94 | 0.1157 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.94 | 0.1157 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.94 | 0.1157 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.94 | 0.1157 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.94 | 0.1157 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.94 | 0.1157 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.95 | 0.1161 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.95 | 0.1161 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.95 | 0.1161 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.95 | 0.1161 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.95 | 0.1161 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.95 | 0.1161 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.95 | 0.1161 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.95 | 0.1161 | 25 | 0.9843 | 50     | 82   |
| ASWR     | 2.95 | 0.1161 | 25 | 0.9843 | 50     | 120  |
| ADSL     | 2.95 | 0.1161 | 30 | 1.1811 | 71(75) | 110  |
| ADL      | 2.95 | 0.1161 | 35 | 1.3780 | 100    | 112  |
| ADRL     | 2.95 | 0.1161 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.95 | 0.1161 | 40 | 1.5748 | 65     | 88   |
| ADLL     | 2.95 | 0.1161 | 50 | 1.9685 | 150    | 114  |
| ADRS     | 2.96 | 0.1165 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.96 | 0.1165 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.96 | 0.1165 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.96 | 0.1165 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.96 | 0.1165 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.96 | 0.1165 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.96 | 0.1165 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.96 | 0.1165 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.96 | 0.1165 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.96 | 0.1165 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.97 | 0.1169 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.97 | 0.1169 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.97 | 0.1169 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.97 | 0.1169 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.97 | 0.1169 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.97 | 0.1169 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.97 | 0.1169 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.97 | 0.1169 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.97 | 0.1169 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.97 | 0.1169 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.98 | 0.1173 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.98 | 0.1173 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.98 | 0.1173 | 15 | 0.5906 | 45     | 92   |

| Series   | ØD   |        | FL |        | OAL    | Page |
|----------|------|--------|----|--------|--------|------|
|          | mm   | inch   | mm | inch   | mm     |      |
| ADS      | 2.98 | 0.1173 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.98 | 0.1173 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.98 | 0.1173 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.98 | 0.1173 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.98 | 0.1173 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.98 | 0.1173 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.98 | 0.1173 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 2.99 | 0.1177 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 2.99 | 0.1177 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 2.99 | 0.1177 | 15 | 0.5906 | 45     | 92   |
| ADS      | 2.99 | 0.1177 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 2.99 | 0.1177 | 20 | 0.7874 | 45     | 116  |
| ADR      | 2.99 | 0.1177 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 2.99 | 0.1177 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 2.99 | 0.1177 | 25 | 0.9843 | 50     | 82   |
| ADRL     | 2.99 | 0.1177 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 2.99 | 0.1177 | 40 | 1.5748 | 65     | 88   |
| ADRS     | 3.00 | 0.1181 | 12 | 0.4724 | 38     | 52   |
| ADRS-SV  | 3.00 | 0.1181 | 12 | 0.4724 | 38     | 78   |
| ADR-SUS  | 3.00 | 0.1181 | 15 | 0.5906 | 45     | 92   |
| ADS      | 3.00 | 0.1181 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 3.00 | 0.1181 | 20 | 0.7874 | 45     | 116  |
| ADR      | 3.00 | 0.1181 | 25 | 0.9843 | 50     | 56   |
| ADRL-SUS | 3.00 | 0.1181 | 25 | 0.9843 | 60     | 96   |
| ADR-SV   | 3.00 | 0.1181 | 25 | 0.9843 | 50     | 82   |
| ASWR     | 3.00 | 0.1181 | 25 | 0.9843 | 50     | 120  |
| ADSL     | 3.00 | 0.1181 | 30 | 1.1811 | 71(75) | 110  |
| ASWD     | 3.00 | 0.1181 | 30 | 1.1811 | 71(75) | 121  |
| ADRS     | 3.00 | 0.1181 | 33 | 1.2992 | 60     | 60   |
| ADRS-SV  | 3.00 | 0.1181 | 33 | 1.2992 | 60     | 86   |
| ADRL     | 3.00 | 0.1181 | 40 | 1.5748 | 65     | 62   |
| ADRL-SV  | 3.00 | 0.1181 | 40 | 1.5748 | 65     | 88   |
| ADL      | 3.00 | 0.1181 | 50 | 1.9685 | 100    | 112  |
| ADLL     | 3.00 | 0.1181 | 65 | 2.5591 | 150    | 114  |
| ADS      | 3.01 | 0.1185 | 20 | 0.7874 | 45     | 100  |
| ADS      | 3.02 | 0.1189 | 20 | 0.7874 | 45     | 100  |
| ADS      | 3.03 | 0.1193 | 20 | 0.7874 | 45     | 100  |
| ADS      | 3.04 | 0.1197 | 20 | 0.7874 | 45     | 100  |
| ADS      | 3.05 | 0.1201 | 20 | 0.7874 | 45     | 100  |
| V-ADS    | 3.05 | 0.1201 | 20 | 0.7874 | 45     | 116  |
| ADSL     | 3.05 | 0.1201 | 30 | 1.1811 | 71(75) | 110  |
| ADL      | 3.05 | 0.1201 | 50 | 1.9685 | 100    | 112  |
| ADLL     | 3.05 | 0.1201 | 65 | 2.5591 | 150    | 114  |
| ADS      | 3.06 | 0.1205 | 20 | 0.7874 | 45     | 100  |
| ADS      | 3.07 | 0.1209 | 20 | 0.7874 | 45     | 100  |
| ADS      | 3.08 | 0.1213 | 20 | 0.7874 | 45     | 100  |
| ADS      | 3.09 | 0.1217 | 20 | 0.7874 | 45     | 100  |
| ADS      | 3.10 | 0.1220 | 25 | 0.9843 | 50     | 100  |
| V-ADS    | 3.10 | 0.1220 | 25 | 0.9843 | 50     | 116  |
| ADSL     | 3.10 | 0.1220 | 32 | 1.2598 | 71(75) | 110  |
| ADL      | 3.10 | 0.1220 | 50 | 1.9685 | 100    | 112  |
| ADLL     | 3.10 | 0.1220 | 65 | 2.5591 | 150    | 114  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series | ØD   |        | FL |        | OAL    | Page |
|--------|------|--------|----|--------|--------|------|
|        | mm   | inch   | mm | inch   | mm     |      |
| ADS    | 3.11 | 0.1224 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.12 | 0.1228 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.13 | 0.1232 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.14 | 0.1236 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.15 | 0.1240 | 25 | 0.9843 | 50     | 100  |
| V-ADS  | 3.15 | 0.1240 | 25 | 0.9843 | 50     | 116  |
| ADSL   | 3.15 | 0.1240 | 32 | 1.2598 | 71(75) | 110  |
| ADL    | 3.15 | 0.1240 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.15 | 0.1240 | 65 | 2.5591 | 150    | 114  |
| ADS    | 3.16 | 0.1244 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.17 | 0.1248 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.18 | 0.1252 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.19 | 0.1256 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.20 | 0.1260 | 25 | 0.9843 | 50     | 100  |
| V-ADS  | 3.20 | 0.1260 | 25 | 0.9843 | 50     | 116  |
| ADSL   | 3.20 | 0.1260 | 32 | 1.2598 | 71(75) | 110  |
| ADL    | 3.20 | 0.1260 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.20 | 0.1260 | 65 | 2.5591 | 150    | 114  |
| ADS    | 3.21 | 0.1264 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.22 | 0.1268 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.23 | 0.1272 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.24 | 0.1276 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.25 | 0.1280 | 25 | 0.9843 | 50     | 100  |
| V-ADS  | 3.25 | 0.1280 | 25 | 0.9843 | 50     | 116  |
| ADSL   | 3.25 | 0.1280 | 32 | 1.2598 | 71(75) | 110  |
| ADL    | 3.25 | 0.1280 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.25 | 0.1280 | 65 | 2.5591 | 150    | 114  |
| ADS    | 3.26 | 0.1283 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.27 | 0.1287 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.28 | 0.1291 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.29 | 0.1295 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.30 | 0.1299 | 25 | 0.9843 | 50     | 100  |
| V-ADS  | 3.30 | 0.1299 | 25 | 0.9843 | 50     | 116  |
| ADSL   | 3.30 | 0.1299 | 35 | 1.3780 | 73(75) | 110  |
| ADL    | 3.30 | 0.1299 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.30 | 0.1299 | 65 | 2.5591 | 150    | 114  |
| ADS    | 3.31 | 0.1303 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.32 | 0.1307 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.33 | 0.1311 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.34 | 0.1315 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.35 | 0.1319 | 25 | 0.9843 | 50     | 100  |
| V-ADS  | 3.35 | 0.1319 | 25 | 0.9843 | 50     | 116  |
| ADSL   | 3.35 | 0.1319 | 35 | 1.3780 | 73(75) | 110  |
| ADL    | 3.35 | 0.1319 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.35 | 0.1319 | 65 | 2.5591 | 150    | 114  |
| ADS    | 3.36 | 0.1323 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.37 | 0.1327 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.38 | 0.1331 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.39 | 0.1335 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.40 | 0.1339 | 25 | 0.9843 | 50     | 100  |
| V-ADS  | 3.40 | 0.1339 | 25 | 0.9843 | 50     | 116  |
| ADSL   | 3.40 | 0.1339 | 35 | 1.3780 | 73(75) | 110  |

\* Overall length is being changed to figures in parentheses.

| Series | ØD   |        | FL |        | OAL    | Page |
|--------|------|--------|----|--------|--------|------|
|        | mm   | inch   | mm | inch   | mm     |      |
| ADL    | 3.40 | 0.1339 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.40 | 0.1339 | 65 | 2.5591 | 150    | 114  |
| ADS    | 3.41 | 0.1343 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.42 | 0.1346 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.43 | 0.1350 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.44 | 0.1354 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.45 | 0.1358 | 25 | 0.9843 | 50     | 100  |
| V-ADS  | 3.45 | 0.1358 | 25 | 0.9843 | 50     | 116  |
| ADSL   | 3.45 | 0.1358 | 35 | 1.3780 | 73(75) | 110  |
| ADL    | 3.45 | 0.1358 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.45 | 0.1358 | 65 | 2.5591 | 150    | 114  |
| ADS    | 3.46 | 0.1362 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.47 | 0.1366 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.48 | 0.1370 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.49 | 0.1374 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.50 | 0.1378 | 25 | 0.9843 | 50     | 100  |
| V-ADS  | 3.50 | 0.1378 | 25 | 0.9843 | 50     | 116  |
| ADSL   | 3.50 | 0.1378 | 35 | 1.3780 | 73(75) | 110  |
| ASWD   | 3.50 | 0.1378 | 35 | 1.3780 | 73(75) | 121  |
| ADL    | 3.50 | 0.1378 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.50 | 0.1378 | 65 | 2.5591 | 150    | 114  |
| ADS    | 3.51 | 0.1382 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.52 | 0.1386 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.53 | 0.1390 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.54 | 0.1394 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.55 | 0.1398 | 25 | 0.9843 | 50     | 100  |
| V-ADS  | 3.55 | 0.1398 | 25 | 0.9843 | 50     | 116  |
| ADSL   | 3.55 | 0.1398 | 35 | 1.3780 | 73(75) | 110  |
| ADL    | 3.55 | 0.1398 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.55 | 0.1398 | 65 | 2.5591 | 150    | 114  |
| ADS    | 3.56 | 0.1402 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.57 | 0.1406 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.58 | 0.1409 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.59 | 0.1413 | 25 | 0.9843 | 50     | 100  |
| ADS    | 3.60 | 0.1417 | 27 | 1.0630 | 55     | 100  |
| V-ADS  | 3.60 | 0.1417 | 27 | 1.0630 | 55     | 116  |
| ADSL   | 3.60 | 0.1417 | 37 | 1.4567 | 76(80) | 110  |
| ADL    | 3.60 | 0.1417 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.60 | 0.1417 | 75 | 2.9528 | 150    | 114  |
| ADS    | 3.61 | 0.1421 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.62 | 0.1425 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.63 | 0.1429 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.64 | 0.1433 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.65 | 0.1437 | 27 | 1.0630 | 55     | 100  |
| V-ADS  | 3.65 | 0.1437 | 27 | 1.0630 | 55     | 116  |
| ADSL   | 3.65 | 0.1437 | 37 | 1.4567 | 76(80) | 110  |
| ADL    | 3.65 | 0.1437 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.65 | 0.1437 | 75 | 2.9528 | 150    | 114  |
| ADS    | 3.66 | 0.1441 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.67 | 0.1445 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.68 | 0.1449 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.69 | 0.1453 | 27 | 1.0630 | 55     | 100  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series | ØD   |        | FL |        | OAL    | Page |
|--------|------|--------|----|--------|--------|------|
|        | mm   | inch   | mm | inch   | mm     |      |
| ADS    | 3.70 | 0.1457 | 27 | 1.0630 | 55     | 100  |
| V-ADS  | 3.70 | 0.1457 | 27 | 1.0630 | 55     | 116  |
| ADSL   | 3.70 | 0.1457 | 37 | 1.4567 | 76(80) | 110  |
| ADL    | 3.70 | 0.1457 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.70 | 0.1457 | 75 | 2.9528 | 150    | 114  |
| ADS    | 3.71 | 0.1461 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.72 | 0.1465 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.73 | 0.1469 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.74 | 0.1472 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.75 | 0.1476 | 27 | 1.0630 | 55     | 100  |
| V-ADS  | 3.75 | 0.1476 | 27 | 1.0630 | 55     | 116  |
| ADSL   | 3.75 | 0.1476 | 37 | 1.4567 | 76(80) | 110  |
| ADL    | 3.75 | 0.1476 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.75 | 0.1476 | 75 | 2.9528 | 150    | 114  |
| ADS    | 3.76 | 0.1480 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.77 | 0.1484 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.78 | 0.1488 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.79 | 0.1492 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.80 | 0.1496 | 27 | 1.0630 | 55     | 100  |
| V-ADS  | 3.80 | 0.1496 | 27 | 1.0630 | 55     | 116  |
| ADSL   | 3.80 | 0.1496 | 37 | 1.4567 | 76(80) | 110  |
| ADL    | 3.80 | 0.1496 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.80 | 0.1496 | 75 | 2.9528 | 150    | 114  |
| ADS    | 3.81 | 0.1500 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.82 | 0.1504 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.83 | 0.1508 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.84 | 0.1512 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.85 | 0.1516 | 27 | 1.0630 | 55     | 100  |
| V-ADS  | 3.85 | 0.1516 | 27 | 1.0630 | 55     | 116  |
| ADSL   | 3.85 | 0.1516 | 37 | 1.4567 | 76(80) | 110  |
| ADL    | 3.85 | 0.1516 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.85 | 0.1516 | 75 | 2.9528 | 150    | 114  |
| ADS    | 3.86 | 0.1520 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.87 | 0.1524 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.88 | 0.1528 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.89 | 0.1531 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.90 | 0.1535 | 27 | 1.0630 | 55     | 100  |
| V-ADS  | 3.90 | 0.1535 | 27 | 1.0630 | 55     | 116  |
| ADSL   | 3.90 | 0.1535 | 37 | 1.4567 | 79(80) | 110  |
| ADL    | 3.90 | 0.1535 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.90 | 0.1535 | 75 | 2.9528 | 150    | 114  |
| ADS    | 3.91 | 0.1539 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.92 | 0.1543 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.93 | 0.1547 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.94 | 0.1551 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.95 | 0.1555 | 27 | 1.0630 | 55     | 100  |
| V-ADS  | 3.95 | 0.1555 | 27 | 1.0630 | 55     | 116  |
| ADSL   | 3.95 | 0.1555 | 37 | 1.4567 | 79(80) | 110  |
| ADL    | 3.95 | 0.1555 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 3.95 | 0.1555 | 75 | 2.9528 | 150    | 114  |
| ADS    | 3.96 | 0.1559 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.97 | 0.1563 | 27 | 1.0630 | 55     | 100  |

| Series | ØD   |        | FL |        | OAL    | Page |
|--------|------|--------|----|--------|--------|------|
|        | mm   | inch   | mm | inch   | mm     |      |
| ADS    | 3.98 | 0.1567 | 27 | 1.0630 | 55     | 100  |
| ADS    | 3.99 | 0.1571 | 27 | 1.0630 | 55     | 100  |
| ADS    | 4.00 | 0.1575 | 27 | 1.0630 | 55     | 100  |
| V-ADS  | 4.00 | 0.1575 | 27 | 1.0630 | 55     | 116  |
| ADSL   | 4.00 | 0.1575 | 40 | 1.5748 | 83(90) | 110  |
| ASWD   | 4.00 | 0.1575 | 40 | 1.5748 | 83(90) | 121  |
| ADL    | 4.00 | 0.1575 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.00 | 0.1575 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.01 | 0.1579 | 27 | 1.0630 | 55     | 100  |
| ADS    | 4.02 | 0.1583 | 27 | 1.0630 | 55     | 100  |
| ADS    | 4.03 | 0.1587 | 27 | 1.0630 | 55     | 100  |
| ADS    | 4.04 | 0.1591 | 27 | 1.0630 | 55     | 100  |
| ADS    | 4.05 | 0.1594 | 27 | 1.0630 | 55     | 100  |
| V-ADS  | 4.05 | 0.1594 | 27 | 1.0630 | 55     | 116  |
| ADSL   | 4.05 | 0.1594 | 40 | 1.5748 | 83(90) | 110  |
| ADL    | 4.05 | 0.1594 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.05 | 0.1594 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.06 | 0.1598 | 27 | 1.0630 | 55     | 100  |
| ADS    | 4.07 | 0.1602 | 27 | 1.0630 | 55     | 100  |
| ADS    | 4.08 | 0.1606 | 27 | 1.0630 | 55     | 100  |
| ADS    | 4.09 | 0.1610 | 27 | 1.0630 | 55     | 100  |
| ADS    | 4.10 | 0.1614 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.10 | 0.1614 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.10 | 0.1614 | 40 | 1.5748 | 83(90) | 110  |
| ADL    | 4.10 | 0.1614 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.10 | 0.1614 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.11 | 0.1618 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.12 | 0.1622 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.13 | 0.1626 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.14 | 0.1630 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.15 | 0.1634 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.15 | 0.1634 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.15 | 0.1634 | 40 | 1.5748 | 83(90) | 110  |
| ADL    | 4.15 | 0.1634 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.15 | 0.1634 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.16 | 0.1638 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.17 | 0.1642 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.18 | 0.1646 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.19 | 0.1650 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.20 | 0.1654 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.20 | 0.1654 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.20 | 0.1654 | 40 | 1.5748 | 83(90) | 110  |
| ADL    | 4.20 | 0.1654 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.20 | 0.1654 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.21 | 0.1657 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.22 | 0.1661 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.23 | 0.1665 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.24 | 0.1669 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.25 | 0.1673 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.25 | 0.1673 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.25 | 0.1673 | 40 | 1.5748 | 83(90) | 110  |
| ADL    | 4.25 | 0.1673 | 50 | 1.9685 | 100    | 112  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series | ØD   |        | FL |        | OAL    | Page |
|--------|------|--------|----|--------|--------|------|
|        | mm   | inch   | mm | inch   | mm     |      |
| ADLL   | 4.25 | 0.1673 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.26 | 0.1677 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.27 | 0.1681 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.28 | 0.1685 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.29 | 0.1689 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.30 | 0.1693 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.30 | 0.1693 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.30 | 0.1693 | 40 | 1.5748 | 83(90) | 110  |
| ADL    | 4.30 | 0.1693 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.30 | 0.1693 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.31 | 0.1697 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.32 | 0.1701 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.33 | 0.1705 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.34 | 0.1709 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.35 | 0.1713 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.35 | 0.1713 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.35 | 0.1713 | 40 | 1.5748 | 83(90) | 110  |
| ADL    | 4.35 | 0.1713 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.35 | 0.1713 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.36 | 0.1717 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.37 | 0.1720 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.38 | 0.1724 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.39 | 0.1728 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.40 | 0.1732 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.40 | 0.1732 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.40 | 0.1732 | 42 | 1.6535 | 86(90) | 110  |
| ADL    | 4.40 | 0.1732 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.40 | 0.1732 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.41 | 0.1736 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.42 | 0.1740 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.43 | 0.1744 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.44 | 0.1748 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.45 | 0.1752 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.45 | 0.1752 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.45 | 0.1752 | 42 | 1.6535 | 86(90) | 110  |
| ADL    | 4.45 | 0.1752 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.45 | 0.1752 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.46 | 0.1756 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.47 | 0.1760 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.48 | 0.1764 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.49 | 0.1768 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.50 | 0.1772 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.50 | 0.1772 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.50 | 0.1772 | 42 | 1.6535 | 86(90) | 110  |
| ASWD   | 4.50 | 0.1772 | 42 | 1.6535 | 86(90) | 121  |
| ADL    | 4.50 | 0.1772 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.50 | 0.1772 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.51 | 0.1776 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.52 | 0.1780 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.53 | 0.1783 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.54 | 0.1787 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.55 | 0.1791 | 30 | 1.1811 | 60     | 100  |

\* Overall length is being changed to figures in parentheses.

| Series | ØD   |        | FL |        | OAL    | Page |
|--------|------|--------|----|--------|--------|------|
|        | mm   | inch   | mm | inch   | mm     |      |
| V-ADS  | 4.55 | 0.1791 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.55 | 0.1791 | 42 | 1.6535 | 86(90) | 110  |
| ADL    | 4.55 | 0.1791 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.55 | 0.1791 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.56 | 0.1795 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.57 | 0.1799 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.58 | 0.1803 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.59 | 0.1807 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.60 | 0.1811 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.60 | 0.1811 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.60 | 0.1811 | 42 | 1.6535 | 86(90) | 110  |
| ADL    | 4.60 | 0.1811 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.60 | 0.1811 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.61 | 0.1815 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.62 | 0.1819 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.63 | 0.1823 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.64 | 0.1827 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.65 | 0.1831 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.65 | 0.1831 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.65 | 0.1831 | 42 | 1.6535 | 86(90) | 110  |
| ADL    | 4.65 | 0.1831 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.65 | 0.1831 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.66 | 0.1835 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.67 | 0.1839 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.68 | 0.1843 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.69 | 0.1846 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.70 | 0.1850 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.70 | 0.1850 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.70 | 0.1850 | 42 | 1.6535 | 89(90) | 110  |
| ADL    | 4.70 | 0.1850 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.70 | 0.1850 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.71 | 0.1854 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.72 | 0.1858 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.73 | 0.1862 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.74 | 0.1866 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.75 | 0.1870 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.75 | 0.1870 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.75 | 0.1870 | 42 | 1.6535 | 89(90) | 110  |
| ADL    | 4.75 | 0.1870 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.75 | 0.1870 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.76 | 0.1874 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.77 | 0.1878 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.78 | 0.1882 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.79 | 0.1886 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.80 | 0.1890 | 30 | 1.1811 | 60     | 100  |
| V-ADS  | 4.80 | 0.1890 | 30 | 1.1811 | 60     | 116  |
| ADSL   | 4.80 | 0.1890 | 42 | 1.6535 | 89(90) | 110  |
| ADL    | 4.80 | 0.1890 | 50 | 1.9685 | 100    | 112  |
| ADLL   | 4.80 | 0.1890 | 75 | 2.9528 | 150    | 114  |
| ADS    | 4.81 | 0.1894 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.82 | 0.1898 | 30 | 1.1811 | 60     | 100  |
| ADS    | 4.83 | 0.1902 | 30 | 1.1811 | 60     | 100  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series | ØD   |        | FL |        | OAL     | Page |
|--------|------|--------|----|--------|---------|------|
|        | mm   | inch   | mm | inch   | mm      |      |
| ADS    | 4.84 | 0.1906 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.85 | 0.1909 | 30 | 1.1811 | 60      | 100  |
| V-ADS  | 4.85 | 0.1909 | 30 | 1.1811 | 60      | 116  |
| ADSL   | 4.85 | 0.1909 | 42 | 1.6535 | 89(90)  | 110  |
| ADL    | 4.85 | 0.1909 | 50 | 1.9685 | 100     | 112  |
| ADLL   | 4.85 | 0.1909 | 75 | 2.9528 | 150     | 114  |
| ADS    | 4.86 | 0.1913 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.87 | 0.1917 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.88 | 0.1921 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.89 | 0.1925 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.90 | 0.1929 | 30 | 1.1811 | 60      | 100  |
| V-ADS  | 4.90 | 0.1929 | 30 | 1.1811 | 60      | 116  |
| ADSL   | 4.90 | 0.1929 | 45 | 1.7717 | 92(100) | 110  |
| ADL    | 4.90 | 0.1929 | 50 | 1.9685 | 100     | 112  |
| ADLL   | 4.90 | 0.1929 | 75 | 2.9528 | 150     | 114  |
| ADS    | 4.91 | 0.1933 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.92 | 0.1937 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.93 | 0.1941 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.94 | 0.1945 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.95 | 0.1949 | 30 | 1.1811 | 60      | 100  |
| V-ADS  | 4.95 | 0.1949 | 30 | 1.1811 | 60      | 116  |
| ADSL   | 4.95 | 0.1949 | 45 | 1.7717 | 92(100) | 110  |
| ADL    | 4.95 | 0.1949 | 50 | 1.9685 | 100     | 112  |
| ADLL   | 4.95 | 0.1949 | 75 | 2.9528 | 150     | 114  |
| ADS    | 4.96 | 0.1953 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.97 | 0.1957 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.98 | 0.1961 | 30 | 1.1811 | 60      | 100  |
| ADS    | 4.99 | 0.1965 | 30 | 1.1811 | 60      | 100  |
| ADS    | 5.00 | 0.1969 | 30 | 1.1811 | 60      | 100  |
| V-ADS  | 5.00 | 0.1969 | 30 | 1.1811 | 60      | 116  |
| ADSL   | 5.00 | 0.1969 | 45 | 1.7717 | 92(100) | 110  |
| ASWD   | 5.00 | 0.1969 | 45 | 1.7717 | 92(100) | 121  |
| ADL    | 5.00 | 0.1969 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.00 | 0.1969 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.01 | 0.1972 | 30 | 1.1811 | 60      | 100  |
| ADS    | 5.02 | 0.1976 | 30 | 1.1811 | 60      | 100  |
| ADS    | 5.03 | 0.1980 | 30 | 1.1811 | 60      | 100  |
| ADS    | 5.04 | 0.1984 | 30 | 1.1811 | 60      | 100  |
| ADS    | 5.05 | 0.1988 | 30 | 1.1811 | 60      | 100  |
| V-ADS  | 5.05 | 0.1988 | 30 | 1.1811 | 60      | 116  |
| ADSL   | 5.05 | 0.1988 | 45 | 1.7717 | 92(100) | 110  |
| ADL    | 5.05 | 0.1988 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.05 | 0.1988 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.06 | 0.1992 | 30 | 1.1811 | 60      | 100  |
| ADS    | 5.07 | 0.1996 | 30 | 1.1811 | 60      | 100  |
| ADS    | 5.08 | 0.2000 | 30 | 1.1811 | 60      | 100  |
| ADS    | 5.09 | 0.2004 | 30 | 1.1811 | 60      | 100  |
| ADS    | 5.10 | 0.2008 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.10 | 0.2008 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.10 | 0.2008 | 45 | 1.7717 | 92(100) | 110  |
| ADL    | 5.10 | 0.2008 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.10 | 0.2008 | 90 | 3.5433 | 200     | 114  |

| Series | ØD   |        | FL |        | OAL     | Page |
|--------|------|--------|----|--------|---------|------|
|        | mm   | inch   | mm | inch   | mm      |      |
| ADS    | 5.11 | 0.2012 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.12 | 0.2016 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.13 | 0.2020 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.14 | 0.2024 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.15 | 0.2028 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.15 | 0.2028 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.15 | 0.2028 | 45 | 1.7717 | 92(100) | 110  |
| ADL    | 5.15 | 0.2028 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.15 | 0.2028 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.16 | 0.2031 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.17 | 0.2035 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.18 | 0.2039 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.19 | 0.2043 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.20 | 0.2047 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.20 | 0.2047 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.20 | 0.2047 | 45 | 1.7717 | 95(100) | 110  |
| ADL    | 5.20 | 0.2047 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.20 | 0.2047 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.21 | 0.2051 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.22 | 0.2055 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.23 | 0.2059 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.24 | 0.2063 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.25 | 0.2067 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.25 | 0.2067 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.25 | 0.2067 | 45 | 1.7717 | 95(100) | 110  |
| ADL    | 5.25 | 0.2067 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.25 | 0.2067 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.26 | 0.2071 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.27 | 0.2075 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.28 | 0.2079 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.29 | 0.2083 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.30 | 0.2087 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.30 | 0.2087 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.30 | 0.2087 | 45 | 1.7717 | 95(100) | 110  |
| ADL    | 5.30 | 0.2087 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.30 | 0.2087 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.31 | 0.2091 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.32 | 0.2094 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.33 | 0.2098 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.34 | 0.2102 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.35 | 0.2106 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.35 | 0.2106 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.35 | 0.2106 | 45 | 1.7717 | 95(100) | 110  |
| ADL    | 5.35 | 0.2106 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.35 | 0.2106 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.36 | 0.2110 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.37 | 0.2114 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.38 | 0.2118 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.39 | 0.2122 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.40 | 0.2126 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.40 | 0.2126 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.40 | 0.2126 | 45 | 1.7717 | 95(100) | 110  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series | ØD   |        | FL |        | OAL     | Page |
|--------|------|--------|----|--------|---------|------|
|        | mm   | inch   | mm | inch   | mm      |      |
| ADL    | 5.40 | 0.2126 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.40 | 0.2126 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.41 | 0.2130 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.42 | 0.2134 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.43 | 0.2138 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.44 | 0.2142 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.45 | 0.2146 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.45 | 0.2146 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.45 | 0.2146 | 45 | 1.7717 | 95(100) | 110  |
| ADL    | 5.45 | 0.2146 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.45 | 0.2146 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.46 | 0.2150 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.47 | 0.2154 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.48 | 0.2157 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.49 | 0.2161 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.50 | 0.2165 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.50 | 0.2165 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.50 | 0.2165 | 45 | 1.7717 | 95(100) | 110  |
| ASWD   | 5.50 | 0.2165 | 45 | 1.7717 | 95(100) | 121  |
| ADL    | 5.50 | 0.2165 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.50 | 0.2165 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.51 | 0.2169 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.52 | 0.2173 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.53 | 0.2177 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.54 | 0.2181 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.55 | 0.2185 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.55 | 0.2185 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.55 | 0.2185 | 45 | 1.7717 | 95(100) | 110  |
| ADL    | 5.55 | 0.2185 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.55 | 0.2185 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.56 | 0.2189 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.57 | 0.2193 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.58 | 0.2197 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.59 | 0.2201 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.60 | 0.2205 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.60 | 0.2205 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.60 | 0.2205 | 45 | 1.7717 | 98(100) | 110  |
| ADL    | 5.60 | 0.2205 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.60 | 0.2205 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.61 | 0.2209 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.62 | 0.2213 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.63 | 0.2217 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.64 | 0.2220 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.65 | 0.2224 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.65 | 0.2224 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.65 | 0.2224 | 45 | 1.7717 | 98(100) | 110  |
| ADL    | 5.65 | 0.2224 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.65 | 0.2224 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.66 | 0.2228 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.67 | 0.2232 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.68 | 0.2236 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.69 | 0.2240 | 40 | 1.5748 | 65(80)  | 100  |

\* Overall length is being changed to figures in parentheses.

| Series | ØD   |        | FL |        | OAL     | Page |
|--------|------|--------|----|--------|---------|------|
|        | mm   | inch   | mm | inch   | mm      |      |
| ADS    | 5.70 | 0.2244 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.70 | 0.2244 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.70 | 0.2244 | 45 | 1.7717 | 98(100) | 110  |
| ADL    | 5.70 | 0.2244 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.70 | 0.2244 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.71 | 0.2248 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.72 | 0.2252 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.73 | 0.2256 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.74 | 0.2260 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.75 | 0.2264 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.75 | 0.2264 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.75 | 0.2264 | 45 | 1.7717 | 98(100) | 110  |
| ADL    | 5.75 | 0.2264 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.75 | 0.2264 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.76 | 0.2268 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.77 | 0.2272 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.78 | 0.2276 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.79 | 0.2280 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.80 | 0.2283 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.80 | 0.2283 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.80 | 0.2283 | 45 | 1.7717 | 98(100) | 110  |
| ADL    | 5.80 | 0.2283 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.80 | 0.2283 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.81 | 0.2287 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.82 | 0.2291 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.83 | 0.2295 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.84 | 0.2299 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.85 | 0.2303 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.85 | 0.2303 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.85 | 0.2303 | 45 | 1.7717 | 98(100) | 110  |
| ADL    | 5.85 | 0.2303 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.85 | 0.2303 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.86 | 0.2307 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.87 | 0.2311 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.88 | 0.2315 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.89 | 0.2319 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.90 | 0.2323 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.90 | 0.2323 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.90 | 0.2323 | 45 | 1.7717 | 98(100) | 110  |
| ADL    | 5.90 | 0.2323 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.90 | 0.2323 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.91 | 0.2327 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.92 | 0.2331 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.93 | 0.2335 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.94 | 0.2339 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.95 | 0.2343 | 40 | 1.5748 | 65(80)  | 100  |
| V-ADS  | 5.95 | 0.2343 | 40 | 1.5748 | 80      | 116  |
| ADSL   | 5.95 | 0.2343 | 45 | 1.7717 | 98(100) | 110  |
| ADL    | 5.95 | 0.2343 | 75 | 2.9528 | 150     | 112  |
| ADLL   | 5.95 | 0.2343 | 90 | 3.5433 | 200     | 114  |
| ADS    | 5.96 | 0.2346 | 40 | 1.5748 | 65(80)  | 100  |
| ADS    | 5.97 | 0.2350 | 40 | 1.5748 | 65(80)  | 100  |



# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series | ØD   |        | FL |        | OAL      | Page |
|--------|------|--------|----|--------|----------|------|
|        | mm   | inch   | mm | inch   | mm       |      |
| ADS    | 5.98 | 0.2354 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 5.99 | 0.2358 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.00 | 0.2362 | 40 | 1.5748 | 65(80)   | 100  |
| V-ADS  | 6.00 | 0.2362 | 40 | 1.5748 | 80       | 116  |
| ADSL   | 6.00 | 0.2362 | 50 | 1.9685 | 102(110) | 110  |
| ASWD   | 6.00 | 0.2362 | 50 | 1.9685 | 102(110) | 121  |
| ADL    | 6.00 | 0.2362 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 6.00 | 0.2362 | 90 | 3.5433 | 200      | 114  |
| ADS    | 6.01 | 0.2366 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.02 | 0.2370 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.03 | 0.2374 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.04 | 0.2378 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.05 | 0.2382 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.06 | 0.2386 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.07 | 0.2390 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.08 | 0.2394 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.09 | 0.2398 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.10 | 0.2402 | 40 | 1.5748 | 65(80)   | 100  |
| ADSL   | 6.10 | 0.2402 | 50 | 1.9685 | 102(110) | 110  |
| ADL    | 6.10 | 0.2402 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 6.10 | 0.2402 | 90 | 3.5433 | 200      | 114  |
| ADS    | 6.15 | 0.2421 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.20 | 0.2441 | 40 | 1.5748 | 65(80)   | 100  |
| ADSL   | 6.20 | 0.2441 | 50 | 1.9685 | 102(110) | 110  |
| ADL    | 6.20 | 0.2441 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 6.20 | 0.2441 | 90 | 3.5433 | 200      | 114  |
| ADS    | 6.25 | 0.2461 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.30 | 0.2480 | 40 | 1.5748 | 65(80)   | 100  |
| ADSL   | 6.30 | 0.2480 | 50 | 1.9685 | 102(110) | 110  |
| ADL    | 6.30 | 0.2480 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 6.30 | 0.2480 | 90 | 3.5433 | 200      | 114  |
| ADS    | 6.35 | 0.2500 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.40 | 0.2520 | 40 | 1.5748 | 65(80)   | 100  |
| ADSL   | 6.40 | 0.2520 | 50 | 1.9685 | 105(110) | 110  |
| ADL    | 6.40 | 0.2520 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 6.40 | 0.2520 | 90 | 3.5433 | 200      | 114  |
| ADS    | 6.45 | 0.2539 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.50 | 0.2559 | 40 | 1.5748 | 65(80)   | 100  |
| ADSL   | 6.50 | 0.2559 | 50 | 1.9685 | 105(110) | 110  |
| ADL    | 6.50 | 0.2559 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 6.50 | 0.2559 | 90 | 3.5433 | 200      | 114  |
| ADS    | 6.55 | 0.2579 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.60 | 0.2598 | 40 | 1.5748 | 65(80)   | 100  |
| ADSL   | 6.60 | 0.2598 | 50 | 1.9685 | 105(110) | 110  |
| ADL    | 6.60 | 0.2598 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 6.60 | 0.2598 | 90 | 3.5433 | 200      | 114  |
| ADS    | 6.65 | 0.2618 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.70 | 0.2638 | 40 | 1.5748 | 65(80)   | 100  |
| ADSL   | 6.70 | 0.2638 | 50 | 1.9685 | 105(110) | 110  |
| ADL    | 6.70 | 0.2638 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 6.70 | 0.2638 | 90 | 3.5433 | 200      | 114  |
| ADS    | 6.75 | 0.2657 | 40 | 1.5748 | 65(80)   | 100  |

| Series | ØD   |        | FL |        | OAL      | Page |
|--------|------|--------|----|--------|----------|------|
|        | mm   | inch   | mm | inch   | mm       |      |
| ADS    | 6.80 | 0.2677 | 40 | 1.5748 | 65(80)   | 100  |
| ADSL   | 6.80 | 0.2677 | 50 | 1.9685 | 105(110) | 110  |
| ADL    | 6.80 | 0.2677 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 6.80 | 0.2677 | 90 | 3.5433 | 200      | 114  |
| ADS    | 6.85 | 0.2697 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 6.90 | 0.2717 | 40 | 1.5748 | 65(80)   | 100  |
| ADSL   | 6.90 | 0.2717 | 50 | 1.9685 | 105(110) | 110  |
| ADL    | 6.90 | 0.2717 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 6.90 | 0.2717 | 90 | 3.5433 | 200      | 114  |
| ADS    | 6.95 | 0.2736 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 7.00 | 0.2756 | 40 | 1.5748 | 65(80)   | 100  |
| ADSL   | 7.00 | 0.2756 | 50 | 1.9685 | 105(110) | 110  |
| ADL    | 7.00 | 0.2756 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 7.00 | 0.2756 | 90 | 3.5433 | 200      | 114  |
| ADS    | 7.01 | 0.2760 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 7.02 | 0.2764 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 7.03 | 0.2768 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 7.04 | 0.2772 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 7.05 | 0.2776 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 7.06 | 0.2780 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 7.07 | 0.2783 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 7.08 | 0.2787 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 7.09 | 0.2791 | 40 | 1.5748 | 65(80)   | 100  |
| ADS    | 7.10 | 0.2795 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 7.10 | 0.2795 | 52 | 2.0472 | 108(110) | 110  |
| ADL    | 7.10 | 0.2795 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 7.10 | 0.2795 | 90 | 3.5433 | 200      | 114  |
| ADS    | 7.20 | 0.2835 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 7.20 | 0.2835 | 52 | 2.0472 | 108(110) | 110  |
| ADL    | 7.20 | 0.2835 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 7.20 | 0.2835 | 90 | 3.5433 | 200      | 114  |
| ADS    | 7.30 | 0.2874 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 7.30 | 0.2874 | 52 | 2.0472 | 108(110) | 110  |
| ADL    | 7.30 | 0.2874 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 7.30 | 0.2874 | 90 | 3.5433 | 200      | 114  |
| ADS    | 7.40 | 0.2913 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 7.40 | 0.2913 | 52 | 2.0472 | 111(120) | 110  |
| ADL    | 7.40 | 0.2913 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 7.40 | 0.2913 | 90 | 3.5433 | 200      | 114  |
| ADS    | 7.50 | 0.2953 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 7.50 | 0.2953 | 52 | 2.0472 | 111(120) | 110  |
| ADL    | 7.50 | 0.2953 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 7.50 | 0.2953 | 90 | 3.5433 | 200      | 114  |
| ADS    | 7.60 | 0.2992 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 7.60 | 0.2992 | 52 | 2.0472 | 111(120) | 110  |
| ADL    | 7.60 | 0.2992 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 7.60 | 0.2992 | 90 | 3.5433 | 200      | 114  |
| ADS    | 7.70 | 0.3031 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 7.70 | 0.3031 | 55 | 2.1654 | 114(120) | 110  |
| ADL    | 7.70 | 0.3031 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 7.70 | 0.3031 | 90 | 3.5433 | 200      | 114  |
| ADS    | 7.80 | 0.3071 | 40 | 1.5748 | 80       | 100  |

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series | ØD   |        | FL |        | OAL      | Page |
|--------|------|--------|----|--------|----------|------|
|        | mm   | inch   | mm | inch   | mm       |      |
| ADSL   | 7.80 | 0.3071 | 55 | 2.1654 | 114(120) | 110  |
| ADL    | 7.80 | 0.3071 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 7.80 | 0.3071 | 90 | 3.5433 | 200      | 114  |
| ADS    | 7.90 | 0.3110 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 7.90 | 0.3110 | 55 | 2.1654 | 114(120) | 110  |
| ADL    | 7.90 | 0.3110 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 7.90 | 0.3110 | 90 | 3.5433 | 200      | 114  |
| ADS    | 8.00 | 0.3150 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 8.00 | 0.3150 | 60 | 2.3622 | 117(120) | 110  |
| ADL    | 8.00 | 0.3150 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 8.00 | 0.3150 | 90 | 3.5433 | 200      | 114  |
| ADS    | 8.01 | 0.3154 | 40 | 1.5748 | 80       | 100  |
| ADS    | 8.02 | 0.3157 | 40 | 1.5748 | 80       | 100  |
| ADS    | 8.03 | 0.3161 | 40 | 1.5748 | 80       | 100  |
| ADS    | 8.04 | 0.3165 | 40 | 1.5748 | 80       | 100  |
| ADS    | 8.05 | 0.3169 | 40 | 1.5748 | 80       | 100  |
| ADS    | 8.06 | 0.3173 | 40 | 1.5748 | 80       | 100  |
| ADS    | 8.07 | 0.3177 | 40 | 1.5748 | 80       | 100  |
| ADS    | 8.08 | 0.3181 | 40 | 1.5748 | 80       | 100  |
| ADS    | 8.09 | 0.3185 | 40 | 1.5748 | 80       | 100  |
| ADS    | 8.10 | 0.3189 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 8.10 | 0.3189 | 60 | 2.3622 | 117(120) | 110  |
| ADL    | 8.10 | 0.3189 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 8.10 | 0.3189 | 90 | 3.5433 | 200      | 114  |
| ADS    | 8.20 | 0.3228 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 8.20 | 0.3228 | 60 | 2.3622 | 117(120) | 110  |
| ADL    | 8.20 | 0.3228 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 8.20 | 0.3228 | 90 | 3.5433 | 200      | 114  |
| ADS    | 8.30 | 0.3268 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 8.30 | 0.3268 | 60 | 2.3622 | 117(120) | 110  |
| ADL    | 8.30 | 0.3268 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 8.30 | 0.3268 | 90 | 3.5433 | 200      | 114  |
| ADS    | 8.40 | 0.3307 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 8.40 | 0.3307 | 60 | 2.3622 | 121(130) | 110  |
| ADL    | 8.40 | 0.3307 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 8.40 | 0.3307 | 90 | 3.5433 | 200      | 114  |
| ADS    | 8.50 | 0.3346 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 8.50 | 0.3346 | 60 | 2.3622 | 121(130) | 110  |
| ADL    | 8.50 | 0.3346 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 8.50 | 0.3346 | 90 | 3.5433 | 200      | 114  |
| ADS    | 8.60 | 0.3386 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 8.60 | 0.3386 | 65 | 2.5591 | 121(130) | 110  |
| ADL    | 8.60 | 0.3386 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 8.60 | 0.3386 | 90 | 3.5433 | 200      | 114  |
| ADS    | 8.70 | 0.3425 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 8.70 | 0.3425 | 65 | 2.5591 | 121(130) | 110  |
| ADL    | 8.70 | 0.3425 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 8.70 | 0.3425 | 90 | 3.5433 | 200      | 114  |
| ADS    | 8.80 | 0.3465 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 8.80 | 0.3465 | 65 | 2.5591 | 124(130) | 110  |
| ADL    | 8.80 | 0.3465 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 8.80 | 0.3465 | 90 | 3.5433 | 200      | 114  |

| Series | ØD   |        | FL |        | OAL      | Page |
|--------|------|--------|----|--------|----------|------|
|        | mm   | inch   | mm | inch   | mm       |      |
| ADS    | 8.90 | 0.3504 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 8.90 | 0.3504 | 65 | 2.5591 | 124(130) | 110  |
| ADL    | 8.90 | 0.3504 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 8.90 | 0.3504 | 90 | 3.5433 | 200      | 114  |
| ADS    | 9.00 | 0.3543 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 9.00 | 0.3543 | 65 | 2.5591 | 124(130) | 110  |
| ADL    | 9.00 | 0.3543 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 9.00 | 0.3543 | 90 | 3.5433 | 200      | 114  |
| ADS    | 9.01 | 0.3547 | 40 | 1.5748 | 80       | 100  |
| ADS    | 9.02 | 0.3551 | 40 | 1.5748 | 80       | 100  |
| ADS    | 9.03 | 0.3555 | 40 | 1.5748 | 80       | 100  |
| ADS    | 9.04 | 0.3559 | 40 | 1.5748 | 80       | 100  |
| ADS    | 9.05 | 0.3563 | 40 | 1.5748 | 80       | 100  |
| ADS    | 9.06 | 0.3567 | 40 | 1.5748 | 80       | 100  |
| ADS    | 9.07 | 0.3571 | 40 | 1.5748 | 80       | 100  |
| ADS    | 9.08 | 0.3575 | 40 | 1.5748 | 80       | 100  |
| ADS    | 9.09 | 0.3579 | 40 | 1.5748 | 80       | 100  |
| ADS    | 9.10 | 0.3583 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 9.10 | 0.3583 | 65 | 2.5591 | 124(130) | 110  |
| ADL    | 9.10 | 0.3583 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 9.10 | 0.3583 | 90 | 3.5433 | 200      | 114  |
| ADS    | 9.20 | 0.3622 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 9.20 | 0.3622 | 65 | 2.5591 | 127(130) | 110  |
| ADL    | 9.20 | 0.3622 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 9.20 | 0.3622 | 90 | 3.5433 | 200      | 114  |
| ADS    | 9.30 | 0.3661 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 9.30 | 0.3661 | 65 | 2.5591 | 127(130) | 110  |
| ADL    | 9.30 | 0.3661 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 9.30 | 0.3661 | 90 | 3.5433 | 200      | 114  |
| ADS    | 9.40 | 0.3701 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 9.40 | 0.3701 | 65 | 2.5591 | 127(130) | 110  |
| ADL    | 9.40 | 0.3701 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 9.40 | 0.3701 | 90 | 3.5433 | 200      | 114  |
| ADS    | 9.50 | 0.3740 | 40 | 1.5748 | 80       | 100  |
| ADSL   | 9.50 | 0.3740 | 65 | 2.5591 | 127(130) | 110  |
| ADL    | 9.50 | 0.3740 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 9.50 | 0.3740 | 90 | 3.5433 | 200      | 114  |
| ADS    | 9.60 | 0.3780 | 50 | 1.9685 | 100      | 100  |
| ADSL   | 9.60 | 0.3780 | 65 | 2.5591 | 130      | 110  |
| ADL    | 9.60 | 0.3780 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 9.60 | 0.3780 | 90 | 3.5433 | 200      | 114  |
| ADS    | 9.70 | 0.3819 | 50 | 1.9685 | 100      | 100  |
| ADSL   | 9.70 | 0.3819 | 65 | 2.5591 | 130      | 110  |
| ADL    | 9.70 | 0.3819 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 9.70 | 0.3819 | 90 | 3.5433 | 200      | 114  |
| ADS    | 9.80 | 0.3858 | 50 | 1.9685 | 100      | 100  |
| ADSL   | 9.80 | 0.3858 | 65 | 2.5591 | 130      | 110  |
| ADL    | 9.80 | 0.3858 | 75 | 2.9528 | 150      | 112  |
| ADLL   | 9.80 | 0.3858 | 90 | 3.5433 | 200      | 114  |
| ADS    | 9.90 | 0.3898 | 50 | 1.9685 | 100      | 100  |
| ADSL   | 9.90 | 0.3898 | 65 | 2.5591 | 130      | 110  |
| ADL    | 9.90 | 0.3898 | 75 | 2.9528 | 150      | 112  |

\* Overall length is being changed to figures in parentheses.

# DRILL SELECTION BY DIAMETER AND FLUTE LENGTH

| Series | ØD    |        | FL  |        | OAL      | Page |
|--------|-------|--------|-----|--------|----------|------|
|        | mm    | inch   | mm  | inch   | mm       |      |
| ADLL   | 9.90  | 0.3898 | 90  | 3.5433 | 200      | 114  |
| ADS    | 10.00 | 0.3937 | 50  | 1.9685 | 100      | 100  |
| ADSL   | 10.00 | 0.3937 | 70  | 2.7559 | 130      | 110  |
| ADL    | 10.00 | 0.3937 | 75  | 2.9528 | 150      | 112  |
| ADLL   | 10.00 | 0.3937 | 90  | 3.5433 | 200      | 114  |
| ADS    | 10.01 | 0.3941 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.02 | 0.3945 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.03 | 0.3949 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.04 | 0.3953 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.05 | 0.3957 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.06 | 0.3961 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.07 | 0.3965 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.08 | 0.3969 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.09 | 0.3972 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.10 | 0.3976 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.20 | 0.4016 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.30 | 0.4055 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.40 | 0.4094 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.50 | 0.4134 | 50  | 1.9685 | 100      | 100  |
| ADSL   | 10.50 | 0.4134 | 70  | 2.7559 | 137(150) | 110  |
| ADL    | 10.50 | 0.4134 | 90  | 3.5433 | 200      | 112  |
| ADLL   | 10.50 | 0.4134 | 120 | 4.7244 | 250      | 114  |
| ADS    | 10.60 | 0.4173 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.70 | 0.4213 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.80 | 0.4252 | 50  | 1.9685 | 100      | 100  |
| ADS    | 10.90 | 0.4291 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.00 | 0.4331 | 50  | 1.9685 | 100      | 100  |
| ADSL   | 11.00 | 0.4331 | 70  | 2.7559 | 140(150) | 110  |
| ADL    | 11.00 | 0.4331 | 90  | 3.5433 | 200      | 112  |
| ADLL   | 11.00 | 0.4331 | 120 | 4.7244 | 250      | 114  |
| ADS    | 11.01 | 0.4335 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.02 | 0.4339 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.03 | 0.4343 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.04 | 0.4346 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.05 | 0.4350 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.06 | 0.4354 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.07 | 0.4358 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.08 | 0.4362 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.09 | 0.4366 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.10 | 0.4370 | 50  | 1.9685 | 100      | 100  |

| Series | ØD    |        | FL  |        | OAL      | Page |
|--------|-------|--------|-----|--------|----------|------|
|        | mm    | inch   | mm  | inch   | mm       |      |
| ADS    | 11.20 | 0.4409 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.30 | 0.4449 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.40 | 0.4488 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.50 | 0.4528 | 50  | 1.9685 | 100      | 100  |
| ADSL   | 11.50 | 0.4528 | 70  | 2.7559 | 143(150) | 110  |
| ADL    | 11.50 | 0.4528 | 90  | 3.5433 | 200      | 112  |
| ADLL   | 11.50 | 0.4528 | 120 | 4.7244 | 250      | 114  |
| ADS    | 11.60 | 0.4567 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.70 | 0.4606 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.80 | 0.4646 | 50  | 1.9685 | 100      | 100  |
| ADS    | 11.90 | 0.4685 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.00 | 0.4724 | 50  | 1.9685 | 100      | 100  |
| ADSL   | 12.00 | 0.4724 | 70  | 2.7559 | 149(150) | 110  |
| ADL    | 12.00 | 0.4724 | 90  | 3.5433 | 200      | 112  |
| ADLL   | 12.00 | 0.4724 | 120 | 4.7244 | 250      | 114  |
| ADS    | 12.01 | 0.4728 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.02 | 0.4732 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.03 | 0.4736 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.04 | 0.4740 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.05 | 0.4744 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.06 | 0.4748 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.07 | 0.4752 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.08 | 0.4756 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.09 | 0.4760 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.10 | 0.4764 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.20 | 0.4803 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.30 | 0.4843 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.40 | 0.4882 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.50 | 0.4921 | 50  | 1.9685 | 100      | 100  |
| ADSL   | 12.50 | 0.4921 | 70  | 2.7559 | 149(150) | 110  |
| ADL    | 12.50 | 0.4921 | 90  | 3.5433 | 200      | 112  |
| ADLL   | 12.50 | 0.4921 | 120 | 4.7244 | 250      | 114  |
| ADS    | 12.60 | 0.4961 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.70 | 0.5000 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.80 | 0.5039 | 50  | 1.9685 | 100      | 100  |
| ADS    | 12.90 | 0.5079 | 50  | 1.9685 | 100      | 100  |
| ADS    | 13.00 | 0.5118 | 50  | 1.9685 | 100      | 100  |
| ADSL   | 13.00 | 0.5118 | 70  | 2.7559 | 149(150) | 110  |
| ADL    | 13.00 | 0.5118 | 90  | 3.5433 | 200      | 112  |
| ADLL   | 13.00 | 0.5118 | 120 | 4.7244 | 250      | 114  |

\* Overall length is being changed to figures in parentheses.

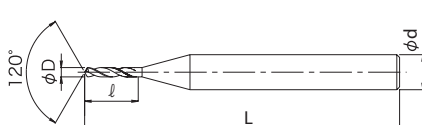
# PRODUCTS



# 3MM SHANK DRILLS

# ADRS

SHORT, UNCOATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.005 mm

3mm Shank Drills

| Product No. | ØD   |        | ℓ   |        | L  | d  | Stock |
|-------------|------|--------|-----|--------|----|----|-------|
|             | mm   | inch   | mm  | inch   | mm | mm |       |
| ADRS-0010   | 0.10 | 0.0039 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRS-0011   | 0.11 | 0.0043 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRS-0012   | 0.12 | 0.0047 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRS-0013   | 0.13 | 0.0051 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRS-0014   | 0.14 | 0.0055 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRS-0015   | 0.15 | 0.0059 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRS-0016   | 0.16 | 0.0063 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRS-0017   | 0.17 | 0.0067 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRS-0018   | 0.18 | 0.0071 | 1   | 0.0394 | 38 | 3  | ●     |
| ADRS-0019   | 0.19 | 0.0075 | 1   | 0.0394 | 38 | 3  | ●     |
| ADRS-0020   | 0.20 | 0.0079 | 1   | 0.0394 | 38 | 3  | ●     |
| ADRS-0021   | 0.21 | 0.0083 | 1   | 0.0394 | 38 | 3  | ●     |
| ADRS-0022   | 0.22 | 0.0087 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRS-0023   | 0.23 | 0.0091 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRS-0024   | 0.24 | 0.0094 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRS-0025   | 0.25 | 0.0098 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRS-0026   | 0.26 | 0.0102 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRS-0027   | 0.27 | 0.0106 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRS-0028   | 0.28 | 0.0110 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRS-0029   | 0.29 | 0.0114 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRS-0030   | 0.30 | 0.0118 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-0031   | 0.31 | 0.0122 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-0032   | 0.32 | 0.0126 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-0033   | 0.33 | 0.0130 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-0034   | 0.34 | 0.0134 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-0035   | 0.35 | 0.0138 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-0036   | 0.36 | 0.0142 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-0037   | 0.37 | 0.0146 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-0038   | 0.38 | 0.0150 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-0039   | 0.39 | 0.0154 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-0040   | 0.40 | 0.0157 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0041   | 0.41 | 0.0161 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0042   | 0.42 | 0.0165 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0043   | 0.43 | 0.0169 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0044   | 0.44 | 0.0173 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0045   | 0.45 | 0.0177 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0046   | 0.46 | 0.0181 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0047   | 0.47 | 0.0185 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0048   | 0.48 | 0.0189 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0049   | 0.49 | 0.0193 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0050   | 0.50 | 0.0197 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-0051   | 0.51 | 0.0201 | 3   | 0.1181 | 38 | 3  | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-0052   | 0.52 | 0.0205 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0053   | 0.53 | 0.0209 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0054   | 0.54 | 0.0213 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0055   | 0.55 | 0.0217 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0056   | 0.56 | 0.0220 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0057   | 0.57 | 0.0224 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0058   | 0.58 | 0.0228 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0059   | 0.59 | 0.0232 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0060   | 0.60 | 0.0236 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0061   | 0.61 | 0.0240 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0062   | 0.62 | 0.0244 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0063   | 0.63 | 0.0248 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0064   | 0.64 | 0.0252 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0065   | 0.65 | 0.0256 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0066   | 0.66 | 0.0260 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0067   | 0.67 | 0.0264 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0068   | 0.68 | 0.0268 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0069   | 0.69 | 0.0272 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-0070   | 0.70 | 0.0276 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0071   | 0.71 | 0.0280 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0072   | 0.72 | 0.0283 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0073   | 0.73 | 0.0287 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0074   | 0.74 | 0.0291 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0075   | 0.75 | 0.0295 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0076   | 0.76 | 0.0299 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0077   | 0.77 | 0.0303 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0078   | 0.78 | 0.0307 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0079   | 0.79 | 0.0311 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0080   | 0.80 | 0.0315 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0081   | 0.81 | 0.0319 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0082   | 0.82 | 0.0323 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0083   | 0.83 | 0.0327 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0084   | 0.84 | 0.0331 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0085   | 0.85 | 0.0335 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0086   | 0.86 | 0.0339 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0087   | 0.87 | 0.0343 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0088   | 0.88 | 0.0346 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0089   | 0.89 | 0.0350 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0090   | 0.90 | 0.0354 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0091   | 0.91 | 0.0358 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0092   | 0.92 | 0.0362 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0093   | 0.93 | 0.0366 | 4  | 0.1575 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

# 3MM SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ◎               | ◎             |               | △               | △               | ◎        |

◎ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-0094   | 0.94 | 0.0370 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0095   | 0.95 | 0.0374 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0096   | 0.96 | 0.0378 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0097   | 0.97 | 0.0382 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0098   | 0.98 | 0.0386 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0099   | 0.99 | 0.0390 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-0100   | 1.00 | 0.0394 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0101   | 1.01 | 0.0398 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0102   | 1.02 | 0.0402 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0103   | 1.03 | 0.0406 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0104   | 1.04 | 0.0409 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0105   | 1.05 | 0.0413 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0106   | 1.06 | 0.0417 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0107   | 1.07 | 0.0421 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0108   | 1.08 | 0.0425 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0109   | 1.09 | 0.0429 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0110   | 1.10 | 0.0433 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0111   | 1.11 | 0.0437 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0112   | 1.12 | 0.0441 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0113   | 1.13 | 0.0445 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0114   | 1.14 | 0.0449 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0115   | 1.15 | 0.0453 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0116   | 1.16 | 0.0457 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0117   | 1.17 | 0.0461 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0118   | 1.18 | 0.0465 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0119   | 1.19 | 0.0469 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0120   | 1.20 | 0.0472 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0121   | 1.21 | 0.0476 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0122   | 1.22 | 0.0480 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0123   | 1.23 | 0.0484 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0124   | 1.24 | 0.0488 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0125   | 1.25 | 0.0492 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0126   | 1.26 | 0.0496 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0127   | 1.27 | 0.0500 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0128   | 1.28 | 0.0504 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0129   | 1.29 | 0.0508 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0130   | 1.30 | 0.0512 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0131   | 1.31 | 0.0516 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0132   | 1.32 | 0.0520 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0133   | 1.33 | 0.0524 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0134   | 1.34 | 0.0528 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0135   | 1.35 | 0.0531 | 5  | 0.1969 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

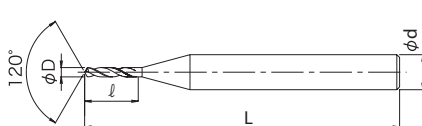
| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-0136   | 1.36 | 0.0535 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0137   | 1.37 | 0.0539 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0138   | 1.38 | 0.0543 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0139   | 1.39 | 0.0547 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0140   | 1.40 | 0.0551 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0141   | 1.41 | 0.0555 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0142   | 1.42 | 0.0559 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0143   | 1.43 | 0.0563 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0144   | 1.44 | 0.0567 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0145   | 1.45 | 0.0571 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0146   | 1.46 | 0.0575 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0147   | 1.47 | 0.0579 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0148   | 1.48 | 0.0583 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0149   | 1.49 | 0.0587 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0150   | 1.50 | 0.0591 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0151   | 1.51 | 0.0594 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0152   | 1.52 | 0.0598 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0153   | 1.53 | 0.0602 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0154   | 1.54 | 0.0606 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0155   | 1.55 | 0.0610 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0156   | 1.56 | 0.0614 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0157   | 1.57 | 0.0618 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0158   | 1.58 | 0.0622 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0159   | 1.59 | 0.0626 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-0160   | 1.60 | 0.0630 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0161   | 1.61 | 0.0634 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0162   | 1.62 | 0.0638 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0163   | 1.63 | 0.0642 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0164   | 1.64 | 0.0646 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0165   | 1.65 | 0.0650 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0166   | 1.66 | 0.0654 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0167   | 1.67 | 0.0657 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0168   | 1.68 | 0.0661 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0169   | 1.69 | 0.0665 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0170   | 1.70 | 0.0669 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0171   | 1.71 | 0.0673 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0172   | 1.72 | 0.0677 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0173   | 1.73 | 0.0681 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0174   | 1.74 | 0.0685 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0175   | 1.75 | 0.0689 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0176   | 1.76 | 0.0693 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0177   | 1.77 | 0.0697 | 10 | 0.3937 | 38 | 3  | ●     |

Next Page ▶

# 3MM SHANK DRILLS

## ADRS (Cont.)

SHORT, UNCOATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.005 mm

| Product No. | ØD   |        | ℓ  |        | L  |    | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-0178   | 1.78 | 0.0701 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0179   | 1.79 | 0.0705 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0180   | 1.80 | 0.0709 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0181   | 1.81 | 0.0713 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0182   | 1.82 | 0.0717 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0183   | 1.83 | 0.0720 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0184   | 1.84 | 0.0724 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0185   | 1.85 | 0.0728 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0186   | 1.86 | 0.0732 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0187   | 1.87 | 0.0736 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0188   | 1.88 | 0.0740 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0189   | 1.89 | 0.0744 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0190   | 1.90 | 0.0748 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0191   | 1.91 | 0.0752 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0192   | 1.92 | 0.0756 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0193   | 1.93 | 0.0760 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0194   | 1.94 | 0.0764 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0195   | 1.95 | 0.0768 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0196   | 1.96 | 0.0772 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0197   | 1.97 | 0.0776 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0198   | 1.98 | 0.0780 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0199   | 1.99 | 0.0783 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0200   | 2.00 | 0.0787 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0201   | 2.01 | 0.0791 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0202   | 2.02 | 0.0795 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0203   | 2.03 | 0.0799 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0204   | 2.04 | 0.0803 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0205   | 2.05 | 0.0807 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0206   | 2.06 | 0.0811 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0207   | 2.07 | 0.0815 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0208   | 2.08 | 0.0819 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0209   | 2.09 | 0.0823 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0210   | 2.10 | 0.0827 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0211   | 2.11 | 0.0831 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0212   | 2.12 | 0.0835 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0213   | 2.13 | 0.0839 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0214   | 2.14 | 0.0843 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0215   | 2.15 | 0.0846 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0216   | 2.16 | 0.0850 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0217   | 2.17 | 0.0854 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0218   | 2.18 | 0.0858 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0219   | 2.19 | 0.0862 | 10 | 0.3937 | 38 | 3  | ●     |

| Product No. | ØD   |        | ℓ  |        | L  |    | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-0220   | 2.20 | 0.0866 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0221   | 2.21 | 0.0870 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0222   | 2.22 | 0.0874 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0223   | 2.23 | 0.0878 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0224   | 2.24 | 0.0882 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0225   | 2.25 | 0.0886 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0226   | 2.26 | 0.0890 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0227   | 2.27 | 0.0894 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0228   | 2.28 | 0.0898 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0229   | 2.29 | 0.0902 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0230   | 2.30 | 0.0906 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0231   | 2.31 | 0.0909 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0232   | 2.32 | 0.0913 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0233   | 2.33 | 0.0917 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0234   | 2.34 | 0.0921 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0235   | 2.35 | 0.0925 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0236   | 2.36 | 0.0929 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0237   | 2.37 | 0.0933 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0238   | 2.38 | 0.0937 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0239   | 2.39 | 0.0941 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0240   | 2.40 | 0.0945 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0241   | 2.41 | 0.0949 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0242   | 2.42 | 0.0953 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0243   | 2.43 | 0.0957 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0244   | 2.44 | 0.0961 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0245   | 2.45 | 0.0965 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0246   | 2.46 | 0.0969 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0247   | 2.47 | 0.0972 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0248   | 2.48 | 0.0976 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0249   | 2.49 | 0.0980 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0250   | 2.50 | 0.0984 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0251   | 2.51 | 0.0988 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0252   | 2.52 | 0.0992 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0253   | 2.53 | 0.0996 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0254   | 2.54 | 0.1000 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0255   | 2.55 | 0.1004 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0256   | 2.56 | 0.1008 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0257   | 2.57 | 0.1012 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0258   | 2.58 | 0.1016 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0259   | 2.59 | 0.1020 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0260   | 2.60 | 0.1024 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0261   | 2.61 | 0.1028 | 10 | 0.3937 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

# 3MM SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ◎               | ◎             |               | △               | △               | ◎        |

◎ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-0262   | 2.62 | 0.1031 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0263   | 2.63 | 0.1035 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0264   | 2.64 | 0.1039 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0265   | 2.65 | 0.1043 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0266   | 2.66 | 0.1047 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0267   | 2.67 | 0.1051 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0268   | 2.68 | 0.1055 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0269   | 2.69 | 0.1059 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-0270   | 2.70 | 0.1063 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0271   | 2.71 | 0.1067 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0272   | 2.72 | 0.1071 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0273   | 2.73 | 0.1075 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0274   | 2.74 | 0.1079 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0275   | 2.75 | 0.1083 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0276   | 2.76 | 0.1087 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0277   | 2.77 | 0.1091 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0278   | 2.78 | 0.1094 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0279   | 2.79 | 0.1098 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0280   | 2.80 | 0.1102 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0281   | 2.81 | 0.1106 | 12 | 0.4724 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-0282   | 2.82 | 0.1110 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0283   | 2.83 | 0.1114 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0284   | 2.84 | 0.1118 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0285   | 2.85 | 0.1122 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0286   | 2.86 | 0.1126 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0287   | 2.87 | 0.1130 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0288   | 2.88 | 0.1134 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0289   | 2.89 | 0.1138 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0290   | 2.90 | 0.1142 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0291   | 2.91 | 0.1146 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0292   | 2.92 | 0.1150 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0293   | 2.93 | 0.1154 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0294   | 2.94 | 0.1157 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0295   | 2.95 | 0.1161 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0296   | 2.96 | 0.1165 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0297   | 2.97 | 0.1169 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0298   | 2.98 | 0.1173 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0299   | 2.99 | 0.1177 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-0300   | 3.00 | 0.1181 | 12 | 0.4724 | 38 | 3  | ●     |

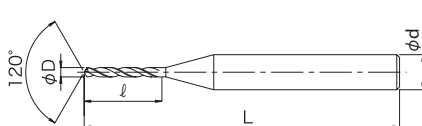
3mm Shank Drills



# 3MM SHANK DRILLS

# ADR

REGULAR, UNCOATED, FOR NON-FERROUS MATERIALS



For drills 0.04 mm diameter and smaller, there is an intermediate neck diameter.

ØD Tolerance:  
+0/-0.005 mm

| Product No. | ØD   |        | ℓ   |        | L  | d  | Stock |
|-------------|------|--------|-----|--------|----|----|-------|
|             | mm   | inch   | mm  | inch   | mm | mm |       |
| ADR-0002    | 0.02 | 0.0008 | 0.2 | 0.0079 | 38 | 3  | ●     |
| ADR-0003    | 0.03 | 0.0012 | 0.3 | 0.0118 | 38 | 3  | ●     |
| ADR-0004    | 0.04 | 0.0016 | 0.4 | 0.0157 | 38 | 3  | ●     |
| ADR-0005    | 0.05 | 0.0020 | 0.5 | 0.0197 | 38 | 3  | ●     |
| ADR-0006    | 0.06 | 0.0024 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADR-0007    | 0.07 | 0.0028 | 0.7 | 0.0276 | 38 | 3  | ●     |
| ADR-0008    | 0.08 | 0.0031 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADR-0009    | 0.09 | 0.0035 | 0.9 | 0.0354 | 38 | 3  | ●     |
| ADR-0010    | 0.10 | 0.0039 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADR-0011    | 0.11 | 0.0043 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADR-0012    | 0.12 | 0.0047 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADR-0013    | 0.13 | 0.0051 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADR-0014    | 0.14 | 0.0055 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADR-0015    | 0.15 | 0.0059 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-0016    | 0.16 | 0.0063 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-0017    | 0.17 | 0.0067 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-0018    | 0.18 | 0.0071 | 2.1 | 0.0827 | 38 | 3  | ●     |
| ADR-0019    | 0.19 | 0.0075 | 2.1 | 0.0827 | 38 | 3  | ●     |
| ADR-0020    | 0.20 | 0.0079 | 2.4 | 0.0945 | 38 | 3  | ●     |
| ADR-0021    | 0.21 | 0.0083 | 2.4 | 0.0945 | 38 | 3  | ●     |
| ADR-0022    | 0.22 | 0.0087 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ADR-0023    | 0.23 | 0.0091 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ADR-0024    | 0.24 | 0.0094 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ADR-0025    | 0.25 | 0.0098 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-0026    | 0.26 | 0.0102 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-0027    | 0.27 | 0.0106 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-0028    | 0.28 | 0.0110 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADR-0029    | 0.29 | 0.0114 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADR-0030    | 0.30 | 0.0118 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-0031    | 0.31 | 0.0122 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-0032    | 0.32 | 0.0126 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-0033    | 0.33 | 0.0130 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-0034    | 0.34 | 0.0134 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-0035    | 0.35 | 0.0138 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-0036    | 0.36 | 0.0142 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-0037    | 0.37 | 0.0146 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-0038    | 0.38 | 0.0150 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-0039    | 0.39 | 0.0154 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-0040    | 0.40 | 0.0157 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-0041    | 0.41 | 0.0161 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-0042    | 0.42 | 0.0165 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-0043    | 0.43 | 0.0169 | 6   | 0.2362 | 38 | 3  | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-0044    | 0.44 | 0.0173 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0045    | 0.45 | 0.0177 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0046    | 0.46 | 0.0181 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0047    | 0.47 | 0.0185 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0048    | 0.48 | 0.0189 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0049    | 0.49 | 0.0193 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0050    | 0.50 | 0.0197 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0051    | 0.51 | 0.0201 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0052    | 0.52 | 0.0205 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0053    | 0.53 | 0.0209 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0054    | 0.54 | 0.0213 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0055    | 0.55 | 0.0217 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0056    | 0.56 | 0.0220 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0057    | 0.57 | 0.0224 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0058    | 0.58 | 0.0228 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0059    | 0.59 | 0.0232 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-0060    | 0.60 | 0.0236 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-0061    | 0.61 | 0.0240 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-0062    | 0.62 | 0.0244 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-0063    | 0.63 | 0.0248 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-0064    | 0.64 | 0.0252 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-0065    | 0.65 | 0.0256 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-0066    | 0.66 | 0.0260 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-0067    | 0.67 | 0.0264 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-0068    | 0.68 | 0.0268 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-0069    | 0.69 | 0.0272 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-0070    | 0.70 | 0.0276 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0071    | 0.71 | 0.0280 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0072    | 0.72 | 0.0283 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0073    | 0.73 | 0.0287 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0074    | 0.74 | 0.0291 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0075    | 0.75 | 0.0295 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0076    | 0.76 | 0.0299 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0077    | 0.77 | 0.0303 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0078    | 0.78 | 0.0307 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0079    | 0.79 | 0.0311 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0080    | 0.80 | 0.0315 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0081    | 0.81 | 0.0319 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0082    | 0.82 | 0.0323 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0083    | 0.83 | 0.0327 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0084    | 0.84 | 0.0331 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0085    | 0.85 | 0.0335 | 8  | 0.3150 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

# 3MM SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ◎               | ◎             |               | △               | △               | ◎        |

◎ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-0086    | 0.86 | 0.0339 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0087    | 0.87 | 0.0343 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0088    | 0.88 | 0.0346 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0089    | 0.89 | 0.0350 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0090    | 0.90 | 0.0354 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0091    | 0.91 | 0.0358 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0092    | 0.92 | 0.0362 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0093    | 0.93 | 0.0366 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0094    | 0.94 | 0.0370 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0095    | 0.95 | 0.0374 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0096    | 0.96 | 0.0378 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0097    | 0.97 | 0.0382 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0098    | 0.98 | 0.0386 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0099    | 0.99 | 0.0390 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-0100    | 1.00 | 0.0394 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0101    | 1.01 | 0.0398 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0102    | 1.02 | 0.0402 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0103    | 1.03 | 0.0406 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0104    | 1.04 | 0.0409 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0105    | 1.05 | 0.0413 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0106    | 1.06 | 0.0417 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0107    | 1.07 | 0.0421 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0108    | 1.08 | 0.0425 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0109    | 1.09 | 0.0429 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0110    | 1.10 | 0.0433 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0111    | 1.11 | 0.0437 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0112    | 1.12 | 0.0441 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0113    | 1.13 | 0.0445 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0114    | 1.14 | 0.0449 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0115    | 1.15 | 0.0453 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0116    | 1.16 | 0.0457 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0117    | 1.17 | 0.0461 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0118    | 1.18 | 0.0465 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0119    | 1.19 | 0.0469 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0120    | 1.20 | 0.0472 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0121    | 1.21 | 0.0476 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0122    | 1.22 | 0.0480 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0123    | 1.23 | 0.0484 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0124    | 1.24 | 0.0488 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0125    | 1.25 | 0.0492 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0126    | 1.26 | 0.0496 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0127    | 1.27 | 0.0500 | 10 | 0.3937 | 38 | 3  | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-0128    | 1.28 | 0.0504 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0129    | 1.29 | 0.0508 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0130    | 1.30 | 0.0512 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0131    | 1.31 | 0.0516 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0132    | 1.32 | 0.0520 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0133    | 1.33 | 0.0524 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0134    | 1.34 | 0.0528 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0135    | 1.35 | 0.0531 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0136    | 1.36 | 0.0535 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0137    | 1.37 | 0.0539 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0138    | 1.38 | 0.0543 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0139    | 1.39 | 0.0547 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0140    | 1.40 | 0.0551 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0141    | 1.41 | 0.0555 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0142    | 1.42 | 0.0559 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0143    | 1.43 | 0.0563 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0144    | 1.44 | 0.0567 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0145    | 1.45 | 0.0571 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0146    | 1.46 | 0.0575 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0147    | 1.47 | 0.0579 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0148    | 1.48 | 0.0583 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0149    | 1.49 | 0.0587 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0150    | 1.50 | 0.0591 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0151    | 1.51 | 0.0594 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0152    | 1.52 | 0.0598 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0153    | 1.53 | 0.0602 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0154    | 1.54 | 0.0606 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0155    | 1.55 | 0.0610 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0156    | 1.56 | 0.0614 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0157    | 1.57 | 0.0618 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0158    | 1.58 | 0.0622 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0159    | 1.59 | 0.0626 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-0160    | 1.60 | 0.0630 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0161    | 1.61 | 0.0634 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0162    | 1.62 | 0.0638 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0163    | 1.63 | 0.0642 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0164    | 1.64 | 0.0646 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0165    | 1.65 | 0.0650 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0166    | 1.66 | 0.0654 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0167    | 1.67 | 0.0657 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0168    | 1.68 | 0.0661 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0169    | 1.69 | 0.0665 | 22 | 0.8661 | 50 | 3  | ●     |

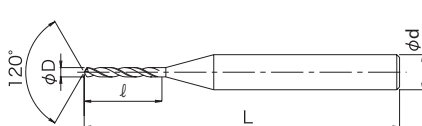
● US Stock Item ○ Japan Stock Item

Next Page ▶

# 3MM SHANK DRILLS

## ADR(Cont.)

REGULAR, UNCOATED, FOR NON-FERROUS MATERIALS



For drills 0.04 mm diameter and smaller, there is an intermediate neck diameter.

ØD Tolerance:  
+0/-0.005 mm

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-0170    | 1.70 | 0.0669 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0171    | 1.71 | 0.0673 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0172    | 1.72 | 0.0677 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0173    | 1.73 | 0.0681 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0174    | 1.74 | 0.0685 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0175    | 1.75 | 0.0689 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0176    | 1.76 | 0.0693 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0177    | 1.77 | 0.0697 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0178    | 1.78 | 0.0701 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0179    | 1.79 | 0.0705 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0180    | 1.80 | 0.0709 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0181    | 1.81 | 0.0713 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0182    | 1.82 | 0.0717 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0183    | 1.83 | 0.0720 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0184    | 1.84 | 0.0724 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0185    | 1.85 | 0.0728 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0186    | 1.86 | 0.0732 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0187    | 1.87 | 0.0736 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0188    | 1.88 | 0.0740 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0189    | 1.89 | 0.0744 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0190    | 1.90 | 0.0748 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0191    | 1.91 | 0.0752 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0192    | 1.92 | 0.0756 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0193    | 1.93 | 0.0760 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0194    | 1.94 | 0.0764 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0195    | 1.95 | 0.0768 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0196    | 1.96 | 0.0772 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0197    | 1.97 | 0.0776 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0198    | 1.98 | 0.0780 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0199    | 1.99 | 0.0783 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0200    | 2.00 | 0.0787 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0201    | 2.01 | 0.0791 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0202    | 2.02 | 0.0795 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0203    | 2.03 | 0.0799 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0204    | 2.04 | 0.0803 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0205    | 2.05 | 0.0807 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0206    | 2.06 | 0.0811 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0207    | 2.07 | 0.0815 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0208    | 2.08 | 0.0819 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0209    | 2.09 | 0.0823 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0210    | 2.10 | 0.0827 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0211    | 2.11 | 0.0831 | 22 | 0.8661 | 50 | 3  | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-0212    | 2.12 | 0.0835 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0213    | 2.13 | 0.0839 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0214    | 2.14 | 0.0843 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0215    | 2.15 | 0.0846 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0216    | 2.16 | 0.0850 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0217    | 2.17 | 0.0854 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0218    | 2.18 | 0.0858 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0219    | 2.19 | 0.0862 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0220    | 2.20 | 0.0866 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0221    | 2.21 | 0.0870 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0222    | 2.22 | 0.0874 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0223    | 2.23 | 0.0878 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0224    | 2.24 | 0.0882 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0225    | 2.25 | 0.0886 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0226    | 2.26 | 0.0890 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0227    | 2.27 | 0.0894 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0228    | 2.28 | 0.0898 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0229    | 2.29 | 0.0902 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0230    | 2.30 | 0.0906 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0231    | 2.31 | 0.0909 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0232    | 2.32 | 0.0913 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0233    | 2.33 | 0.0917 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0234    | 2.34 | 0.0921 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0235    | 2.35 | 0.0925 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0236    | 2.36 | 0.0929 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0237    | 2.37 | 0.0933 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0238    | 2.38 | 0.0937 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0239    | 2.39 | 0.0941 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0240    | 2.40 | 0.0945 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0241    | 2.41 | 0.0949 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0242    | 2.42 | 0.0953 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0243    | 2.43 | 0.0957 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0244    | 2.44 | 0.0961 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0245    | 2.45 | 0.0965 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0246    | 2.46 | 0.0969 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0247    | 2.47 | 0.0972 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0248    | 2.48 | 0.0976 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0249    | 2.49 | 0.0980 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0250    | 2.50 | 0.0984 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0251    | 2.51 | 0.0988 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0252    | 2.52 | 0.0992 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0253    | 2.53 | 0.0996 | 22 | 0.8661 | 50 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

# 3MM SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ◎               | ◎             |               | △               | △               | ◎        |

◎ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-0254    | 2.54 | 0.1000 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0255    | 2.55 | 0.1004 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0256    | 2.56 | 0.1008 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0257    | 2.57 | 0.1012 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0258    | 2.58 | 0.1016 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0259    | 2.59 | 0.1020 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0260    | 2.60 | 0.1024 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0261    | 2.61 | 0.1028 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0262    | 2.62 | 0.1031 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0263    | 2.63 | 0.1035 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0264    | 2.64 | 0.1039 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0265    | 2.65 | 0.1043 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0266    | 2.66 | 0.1047 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0267    | 2.67 | 0.1051 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0268    | 2.68 | 0.1055 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0269    | 2.69 | 0.1059 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-0270    | 2.70 | 0.1063 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0271    | 2.71 | 0.1067 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0272    | 2.72 | 0.1071 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0273    | 2.73 | 0.1075 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0274    | 2.74 | 0.1079 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0275    | 2.75 | 0.1083 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0276    | 2.76 | 0.1087 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0277    | 2.77 | 0.1091 | 25 | 0.9843 | 50 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

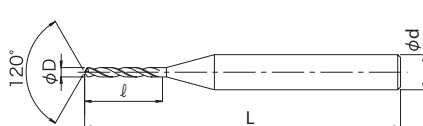
| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-0278    | 2.78 | 0.1094 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0279    | 2.79 | 0.1098 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0280    | 2.80 | 0.1102 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0281    | 2.81 | 0.1106 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0282    | 2.82 | 0.1110 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0283    | 2.83 | 0.1114 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0284    | 2.84 | 0.1118 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0285    | 2.85 | 0.1122 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0286    | 2.86 | 0.1126 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0287    | 2.87 | 0.1130 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0288    | 2.88 | 0.1134 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0289    | 2.89 | 0.1138 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0290    | 2.90 | 0.1142 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0291    | 2.91 | 0.1146 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0292    | 2.92 | 0.1150 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0293    | 2.93 | 0.1154 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0294    | 2.94 | 0.1157 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0295    | 2.95 | 0.1161 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0296    | 2.96 | 0.1165 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0297    | 2.97 | 0.1169 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0298    | 2.98 | 0.1173 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0299    | 2.99 | 0.1177 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-0300    | 3.00 | 0.1181 | 25 | 0.9843 | 50 | 3  | ●     |

3mm Shank Drills

# 3MM SHANK DRILLS

# ADRSL

SEMI LONG, UNCOATED, FOR NON-FERROUS MATERIALS



For drills 0.04 mm diameter and smaller, there is an intermediate neck diameter.

ØD Tolerance:  
+0/-0.005 mm

| Product No. | ØD   |        | ℓ   |        | L  | d  | Stock |
|-------------|------|--------|-----|--------|----|----|-------|
|             | mm   | inch   | mm  | inch   | mm | mm |       |
| ADRSL-0003  | 0.03 | 0.0012 | 0.5 | 0.0197 | 38 | 3  | ●     |
| ADRSL-0004  | 0.04 | 0.0016 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRSL-0005  | 0.05 | 0.0020 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRSL-0006  | 0.06 | 0.0024 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRSL-0007  | 0.07 | 0.0028 | 1.1 | 0.0433 | 38 | 3  | ●     |
| ADRSL-0008  | 0.08 | 0.0031 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRSL-0009  | 0.09 | 0.0035 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRSL-0010  | 0.10 | 0.0039 | 1.9 | 0.0748 | 38 | 3  | ●     |
| ADRSL-0011  | 0.11 | 0.0043 | 1.9 | 0.0748 | 38 | 3  | ●     |
| ADRSL-0012  | 0.12 | 0.0047 | 2.2 | 0.0866 | 38 | 3  | ●     |
| ADRSL-0013  | 0.13 | 0.0051 | 2.2 | 0.0866 | 38 | 3  | ●     |
| ADRSL-0014  | 0.14 | 0.0055 | 2.2 | 0.0866 | 38 | 3  | ●     |
| ADRSL-0015  | 0.15 | 0.0059 | 2.9 | 0.1142 | 38 | 3  | ●     |
| ADRSL-0016  | 0.16 | 0.0063 | 2.9 | 0.1142 | 38 | 3  | ●     |
| ADRSL-0017  | 0.17 | 0.0067 | 3.2 | 0.1260 | 38 | 3  | ●     |
| ADRSL-0018  | 0.18 | 0.0071 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADRSL-0019  | 0.19 | 0.0075 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADRSL-0020  | 0.20 | 0.0079 | 4   | 0.1575 | 38 | 3  | ●     |
| ADRSL-0021  | 0.21 | 0.0083 | 4   | 0.1575 | 38 | 3  | ●     |
| ADRSL-0022  | 0.22 | 0.0087 | 4.3 | 0.1693 | 38 | 3  | ●     |
| ADRSL-0023  | 0.23 | 0.0091 | 4.3 | 0.1693 | 38 | 3  | ●     |
| ADRSL-0024  | 0.24 | 0.0094 | 4.3 | 0.1693 | 38 | 3  | ●     |
| ADRSL-0025  | 0.25 | 0.0098 | 5   | 0.1969 | 38 | 3  | ●     |
| ADRSL-0026  | 0.26 | 0.0102 | 5   | 0.1969 | 38 | 3  | ●     |
| ADRSL-0027  | 0.27 | 0.0106 | 5   | 0.1969 | 38 | 3  | ●     |
| ADRSL-0028  | 0.28 | 0.0110 | 5.2 | 0.2047 | 38 | 3  | ●     |
| ADRSL-0029  | 0.29 | 0.0114 | 5.2 | 0.2047 | 38 | 3  | ●     |
| ADRSL-0030  | 0.30 | 0.0118 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-0031  | 0.31 | 0.0122 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-0032  | 0.32 | 0.0126 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-0033  | 0.33 | 0.0130 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-0034  | 0.34 | 0.0134 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-0035  | 0.35 | 0.0138 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-0036  | 0.36 | 0.0142 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-0037  | 0.37 | 0.0146 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-0038  | 0.38 | 0.0150 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-0039  | 0.39 | 0.0154 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-0040  | 0.40 | 0.0157 | 9   | 0.3543 | 38 | 3  | ●     |
| ADRSL-0041  | 0.41 | 0.0161 | 9   | 0.3543 | 38 | 3  | ●     |
| ADRSL-0042  | 0.42 | 0.0165 | 9   | 0.3543 | 38 | 3  | ●     |
| ADRSL-0043  | 0.43 | 0.0169 | 9   | 0.3543 | 38 | 3  | ●     |
| ADRSL-0044  | 0.44 | 0.0173 | 9   | 0.3543 | 38 | 3  | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRSL-0045  | 0.45 | 0.0177 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0046  | 0.46 | 0.0181 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0047  | 0.47 | 0.0185 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0048  | 0.48 | 0.0189 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0049  | 0.49 | 0.0193 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0050  | 0.50 | 0.0197 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0051  | 0.51 | 0.0201 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0052  | 0.52 | 0.0205 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0053  | 0.53 | 0.0209 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0054  | 0.54 | 0.0213 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0055  | 0.55 | 0.0217 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0056  | 0.56 | 0.0220 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0057  | 0.57 | 0.0224 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0058  | 0.58 | 0.0228 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0059  | 0.59 | 0.0232 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-0060  | 0.60 | 0.0236 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0061  | 0.61 | 0.0240 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0062  | 0.62 | 0.0244 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0063  | 0.63 | 0.0248 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0064  | 0.64 | 0.0252 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0065  | 0.65 | 0.0256 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0066  | 0.66 | 0.0260 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0067  | 0.67 | 0.0264 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0068  | 0.68 | 0.0268 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0069  | 0.69 | 0.0272 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0070  | 0.70 | 0.0276 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0071  | 0.71 | 0.0280 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0072  | 0.72 | 0.0283 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0073  | 0.73 | 0.0287 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0074  | 0.74 | 0.0291 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0075  | 0.75 | 0.0295 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0076  | 0.76 | 0.0299 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0077  | 0.77 | 0.0303 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0078  | 0.78 | 0.0307 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0079  | 0.79 | 0.0311 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0080  | 0.80 | 0.0315 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0081  | 0.81 | 0.0319 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0082  | 0.82 | 0.0323 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0083  | 0.83 | 0.0327 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0084  | 0.84 | 0.0331 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0085  | 0.85 | 0.0335 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0086  | 0.86 | 0.0339 | 11 | 0.4331 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

# 3MM SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ◎               | ◎             |               | △               | △               | ◎        |

◎ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRSL-0087  | 0.87 | 0.0343 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0088  | 0.88 | 0.0346 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0089  | 0.89 | 0.0350 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0090  | 0.90 | 0.0354 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0091  | 0.91 | 0.0358 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0092  | 0.92 | 0.0362 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0093  | 0.93 | 0.0366 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0094  | 0.94 | 0.0370 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0095  | 0.95 | 0.0374 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0096  | 0.96 | 0.0378 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0097  | 0.97 | 0.0382 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0098  | 0.98 | 0.0386 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0099  | 0.99 | 0.0390 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-0100  | 1.00 | 0.0394 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRSL-0105  | 1.05 | 0.0413 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRSL-0110  | 1.10 | 0.0433 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRSL-0115  | 1.15 | 0.0453 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRSL-0120  | 1.20 | 0.0472 | 15 | 0.5906 | 45 | 3  | ●     |

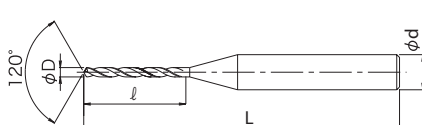
● US Stock Item ○ Japan Stock Item

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRSL-0125  | 1.25 | 0.0492 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRSL-0130  | 1.30 | 0.0512 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-0135  | 1.35 | 0.0531 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-0140  | 1.40 | 0.0551 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-0145  | 1.45 | 0.0571 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-0150  | 1.50 | 0.0591 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-0155  | 1.55 | 0.0610 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-0160  | 1.60 | 0.0630 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-0165  | 1.65 | 0.0650 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-0170  | 1.70 | 0.0669 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-0175  | 1.75 | 0.0689 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-0180  | 1.80 | 0.0709 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-0185  | 1.85 | 0.0728 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-0190  | 1.90 | 0.0748 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-0195  | 1.95 | 0.0768 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-0200  | 2.00 | 0.0787 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-0250  | 2.50 | 0.0984 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-0300  | 3.00 | 0.1181 | 33 | 1.2992 | 60 | 3  | ●     |

# 3MM SHANK DRILLS

# ADRL

LONG, UNCOATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.005 mm

For drills 0.04 mm diameter and smaller, there is an intermediate neck diameter.

3mm Shank Drills

| Product No. | ØD   |        | ℓ   |        | L  | d  | Stock |
|-------------|------|--------|-----|--------|----|----|-------|
|             | mm   | inch   | mm  | inch   | mm | mm |       |
| ADRL-0003   | 0.03 | 0.0012 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRL-0004   | 0.04 | 0.0016 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRL-0005   | 0.05 | 0.0020 | 1.1 | 0.0433 | 38 | 3  | ●     |
| ADRL-0006   | 0.06 | 0.0024 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRL-0007   | 0.07 | 0.0028 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADRL-0008   | 0.08 | 0.0031 | 1.6 | 0.0630 | 38 | 3  | ●     |
| ADRL-0009   | 0.09 | 0.0035 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADRL-0010   | 0.10 | 0.0039 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRL-0011   | 0.11 | 0.0043 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRL-0012   | 0.12 | 0.0047 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-0013   | 0.13 | 0.0051 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-0014   | 0.14 | 0.0055 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-0015   | 0.15 | 0.0059 | 4   | 0.1575 | 38 | 3  | ●     |
| ADRL-0016   | 0.16 | 0.0063 | 4   | 0.1575 | 38 | 3  | ●     |
| ADRL-0017   | 0.17 | 0.0067 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-0018   | 0.18 | 0.0071 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-0019   | 0.19 | 0.0075 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-0020   | 0.20 | 0.0079 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-0021   | 0.21 | 0.0083 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-0022   | 0.22 | 0.0087 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-0023   | 0.23 | 0.0091 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-0024   | 0.24 | 0.0094 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-0025   | 0.25 | 0.0098 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-0026   | 0.26 | 0.0102 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-0027   | 0.27 | 0.0106 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-0028   | 0.28 | 0.0110 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-0029   | 0.29 | 0.0114 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-0030   | 0.30 | 0.0118 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-0031   | 0.31 | 0.0122 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-0032   | 0.32 | 0.0126 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-0033   | 0.33 | 0.0130 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-0034   | 0.34 | 0.0134 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-0035   | 0.35 | 0.0138 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-0036   | 0.36 | 0.0142 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-0037   | 0.37 | 0.0146 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-0038   | 0.38 | 0.0150 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-0039   | 0.39 | 0.0154 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-0040   | 0.40 | 0.0157 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-0041   | 0.41 | 0.0161 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-0042   | 0.42 | 0.0165 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-0043   | 0.43 | 0.0169 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-0044   | 0.44 | 0.0173 | 12  | 0.4724 | 45 | 3  | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-0045   | 0.45 | 0.0177 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0046   | 0.46 | 0.0181 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0047   | 0.47 | 0.0185 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0048   | 0.48 | 0.0189 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0049   | 0.49 | 0.0193 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0050   | 0.50 | 0.0197 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0051   | 0.51 | 0.0201 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0052   | 0.52 | 0.0205 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0053   | 0.53 | 0.0209 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0054   | 0.54 | 0.0213 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0055   | 0.55 | 0.0217 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0056   | 0.56 | 0.0220 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0057   | 0.57 | 0.0224 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0058   | 0.58 | 0.0228 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0059   | 0.59 | 0.0232 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-0060   | 0.60 | 0.0236 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0061   | 0.61 | 0.0240 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0062   | 0.62 | 0.0244 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0063   | 0.63 | 0.0248 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0064   | 0.64 | 0.0252 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0065   | 0.65 | 0.0256 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0066   | 0.66 | 0.0260 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0067   | 0.67 | 0.0264 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0068   | 0.68 | 0.0268 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0069   | 0.69 | 0.0272 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0070   | 0.70 | 0.0276 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0071   | 0.71 | 0.0280 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0072   | 0.72 | 0.0283 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0073   | 0.73 | 0.0287 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0074   | 0.74 | 0.0291 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0075   | 0.75 | 0.0295 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0076   | 0.76 | 0.0299 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0077   | 0.77 | 0.0303 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0078   | 0.78 | 0.0307 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0079   | 0.79 | 0.0311 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0080   | 0.80 | 0.0315 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0081   | 0.81 | 0.0319 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0082   | 0.82 | 0.0323 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0083   | 0.83 | 0.0327 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0084   | 0.84 | 0.0331 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0085   | 0.85 | 0.0335 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0086   | 0.86 | 0.0339 | 15 | 0.5906 | 45 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

# 3MM SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ⊙               | ⊙             |               | △               | △               | ⊙        |

⊙ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-0087   | 0.87 | 0.0343 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0088   | 0.88 | 0.0346 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0089   | 0.89 | 0.0350 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0090   | 0.90 | 0.0354 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0091   | 0.91 | 0.0358 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0092   | 0.92 | 0.0362 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0093   | 0.93 | 0.0366 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0094   | 0.94 | 0.0370 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0095   | 0.95 | 0.0374 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0096   | 0.96 | 0.0378 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0097   | 0.97 | 0.0382 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0098   | 0.98 | 0.0386 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0099   | 0.99 | 0.0390 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-0100   | 1.00 | 0.0394 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0101   | 1.01 | 0.0398 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0102   | 1.02 | 0.0402 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0103   | 1.03 | 0.0406 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0104   | 1.04 | 0.0409 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0105   | 1.05 | 0.0413 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0106   | 1.06 | 0.0417 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0107   | 1.07 | 0.0421 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0108   | 1.08 | 0.0425 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0109   | 1.09 | 0.0429 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0110   | 1.10 | 0.0433 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0111   | 1.11 | 0.0437 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0112   | 1.12 | 0.0441 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0113   | 1.13 | 0.0445 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0114   | 1.14 | 0.0449 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0115   | 1.15 | 0.0453 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0116   | 1.16 | 0.0457 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0117   | 1.17 | 0.0461 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0118   | 1.18 | 0.0465 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0119   | 1.19 | 0.0469 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0120   | 1.20 | 0.0472 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0121   | 1.21 | 0.0476 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0122   | 1.22 | 0.0480 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0123   | 1.23 | 0.0484 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0124   | 1.24 | 0.0488 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0125   | 1.25 | 0.0492 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0126   | 1.26 | 0.0496 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0127   | 1.27 | 0.0500 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0128   | 1.28 | 0.0504 | 20 | 0.7874 | 50 | 3  | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-0129   | 1.29 | 0.0508 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-0130   | 1.30 | 0.0512 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0131   | 1.31 | 0.0516 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0132   | 1.32 | 0.0520 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0133   | 1.33 | 0.0524 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0134   | 1.34 | 0.0528 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0135   | 1.35 | 0.0531 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0136   | 1.36 | 0.0535 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0137   | 1.37 | 0.0539 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0138   | 1.38 | 0.0543 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0139   | 1.39 | 0.0547 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0140   | 1.40 | 0.0551 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0141   | 1.41 | 0.0555 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0142   | 1.42 | 0.0559 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0143   | 1.43 | 0.0563 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0144   | 1.44 | 0.0567 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0145   | 1.45 | 0.0571 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0146   | 1.46 | 0.0575 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0147   | 1.47 | 0.0579 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0148   | 1.48 | 0.0583 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0149   | 1.49 | 0.0587 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0150   | 1.50 | 0.0591 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0151   | 1.51 | 0.0594 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0152   | 1.52 | 0.0598 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0153   | 1.53 | 0.0602 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0154   | 1.54 | 0.0606 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0155   | 1.55 | 0.0610 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0156   | 1.56 | 0.0614 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0157   | 1.57 | 0.0618 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0158   | 1.58 | 0.0622 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0159   | 1.59 | 0.0626 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-0160   | 1.60 | 0.0630 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0161   | 1.61 | 0.0634 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0162   | 1.62 | 0.0638 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0163   | 1.63 | 0.0642 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0164   | 1.64 | 0.0646 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0165   | 1.65 | 0.0650 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0166   | 1.66 | 0.0654 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0167   | 1.67 | 0.0657 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0168   | 1.68 | 0.0661 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0169   | 1.69 | 0.0665 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0170   | 1.70 | 0.0669 | 32 | 1.2598 | 60 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

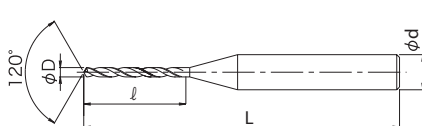
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# 3MM SHANK DRILLS

## ADRL(Cont.)

LONG, UNCOATED, FOR NON-FERROUS MATERIALS



For drills 0.04 mm diameter and smaller, there is an intermediate neck diameter.

ØD Tolerance:  
+0/-0.005 mm

| Product No. | ØD   |        | ℓ  |        | L  |    | d | Stock |
|-------------|------|--------|----|--------|----|----|---|-------|
|             | mm   | inch   | mm | inch   | mm | mm |   |       |
| ADRL-0171   | 1.71 | 0.0673 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0172   | 1.72 | 0.0677 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0173   | 1.73 | 0.0681 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0174   | 1.74 | 0.0685 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0175   | 1.75 | 0.0689 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0176   | 1.76 | 0.0693 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0177   | 1.77 | 0.0697 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0178   | 1.78 | 0.0701 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0179   | 1.79 | 0.0705 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0180   | 1.80 | 0.0709 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0181   | 1.81 | 0.0713 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0182   | 1.82 | 0.0717 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0183   | 1.83 | 0.0720 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0184   | 1.84 | 0.0724 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0185   | 1.85 | 0.0728 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0186   | 1.86 | 0.0732 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0187   | 1.87 | 0.0736 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0188   | 1.88 | 0.0740 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0189   | 1.89 | 0.0744 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0190   | 1.90 | 0.0748 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0191   | 1.91 | 0.0752 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0192   | 1.92 | 0.0756 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0193   | 1.93 | 0.0760 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0194   | 1.94 | 0.0764 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0195   | 1.95 | 0.0768 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0196   | 1.96 | 0.0772 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0197   | 1.97 | 0.0776 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0198   | 1.98 | 0.0780 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0199   | 1.99 | 0.0783 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0200   | 2.00 | 0.0787 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0201   | 2.01 | 0.0791 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0202   | 2.02 | 0.0795 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0203   | 2.03 | 0.0799 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0204   | 2.04 | 0.0803 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0205   | 2.05 | 0.0807 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0206   | 2.06 | 0.0811 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0207   | 2.07 | 0.0815 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0208   | 2.08 | 0.0819 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0209   | 2.09 | 0.0823 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0210   | 2.10 | 0.0827 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0211   | 2.11 | 0.0831 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0212   | 2.12 | 0.0835 | 32 | 1.2598 | 60 | 3  | ● |       |

| Product No. | ØD   |        | ℓ  |        | L  |    | d | Stock |
|-------------|------|--------|----|--------|----|----|---|-------|
|             | mm   | inch   | mm | inch   | mm | mm |   |       |
| ADRL-0213   | 2.13 | 0.0839 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0214   | 2.14 | 0.0843 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0215   | 2.15 | 0.0846 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0216   | 2.16 | 0.0850 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0217   | 2.17 | 0.0854 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0218   | 2.18 | 0.0858 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0219   | 2.19 | 0.0862 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0220   | 2.20 | 0.0866 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0221   | 2.21 | 0.0870 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0222   | 2.22 | 0.0874 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0223   | 2.23 | 0.0878 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0224   | 2.24 | 0.0882 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0225   | 2.25 | 0.0886 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0226   | 2.26 | 0.0890 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0227   | 2.27 | 0.0894 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0228   | 2.28 | 0.0898 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0229   | 2.29 | 0.0902 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0230   | 2.30 | 0.0906 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0231   | 2.31 | 0.0909 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0232   | 2.32 | 0.0913 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0233   | 2.33 | 0.0917 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0234   | 2.34 | 0.0921 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0235   | 2.35 | 0.0925 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0236   | 2.36 | 0.0929 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0237   | 2.37 | 0.0933 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0238   | 2.38 | 0.0937 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0239   | 2.39 | 0.0941 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0240   | 2.40 | 0.0945 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0241   | 2.41 | 0.0949 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0242   | 2.42 | 0.0953 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0243   | 2.43 | 0.0957 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0244   | 2.44 | 0.0961 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0245   | 2.45 | 0.0965 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0246   | 2.46 | 0.0969 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0247   | 2.47 | 0.0972 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0248   | 2.48 | 0.0976 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0249   | 2.49 | 0.0980 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0250   | 2.50 | 0.0984 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0251   | 2.51 | 0.0988 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0252   | 2.52 | 0.0992 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0253   | 2.53 | 0.0996 | 32 | 1.2598 | 60 | 3  | ● |       |
| ADRL-0254   | 2.54 | 0.1000 | 32 | 1.2598 | 60 | 3  | ● |       |

● US Stock Item ○ Japan Stock Item

# 3MM SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ◎               | ◎             |               | △               | △               | ◎        |

◎ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-0255   | 2.55 | 0.1004 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0256   | 2.56 | 0.1008 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0257   | 2.57 | 0.1012 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0258   | 2.58 | 0.1016 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0259   | 2.59 | 0.1020 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0260   | 2.60 | 0.1024 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0261   | 2.61 | 0.1028 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0262   | 2.62 | 0.1031 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0263   | 2.63 | 0.1035 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0264   | 2.64 | 0.1039 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0265   | 2.65 | 0.1043 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0266   | 2.66 | 0.1047 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0267   | 2.67 | 0.1051 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0268   | 2.68 | 0.1055 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0269   | 2.69 | 0.1059 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-0270   | 2.70 | 0.1063 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0271   | 2.71 | 0.1067 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0272   | 2.72 | 0.1071 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0273   | 2.73 | 0.1075 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0274   | 2.74 | 0.1079 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0275   | 2.75 | 0.1083 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0276   | 2.76 | 0.1087 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0277   | 2.77 | 0.1091 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0278   | 2.78 | 0.1094 | 40 | 1.5748 | 65 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

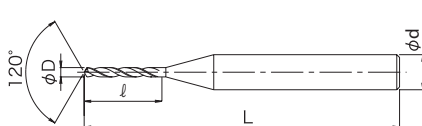
| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-0279   | 2.79 | 0.1098 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0280   | 2.80 | 0.1102 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0281   | 2.81 | 0.1106 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0282   | 2.82 | 0.1110 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0283   | 2.83 | 0.1114 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0284   | 2.84 | 0.1118 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0285   | 2.85 | 0.1122 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0286   | 2.86 | 0.1126 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0287   | 2.87 | 0.1130 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0288   | 2.88 | 0.1134 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0289   | 2.89 | 0.1138 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0290   | 2.90 | 0.1142 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0291   | 2.91 | 0.1146 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0292   | 2.92 | 0.1150 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0293   | 2.93 | 0.1154 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0294   | 2.94 | 0.1157 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0295   | 2.95 | 0.1161 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0296   | 2.96 | 0.1165 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0297   | 2.97 | 0.1169 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0298   | 2.98 | 0.1173 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0299   | 2.99 | 0.1177 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-0300   | 3.00 | 0.1181 | 40 | 1.5748 | 65 | 3  | ●     |

3mm Shank Drills

# 3MM SHANK DRILLS

# ADR-SP

SUPER PRECISION, UNCOATED, FOR NON-FERROUS MATERIALS



For drills 0.045 mm diameter and smaller, there is an intermediate neck diameter.

ØD Tolerance: +0/-0.003 mm  
Runout Accuracy: ≤0.002 mm  
Lip Height difference: ≤0.002 mm

| Product No.  | ØD    |        | ℓ   |        | L  | d  | Stock |
|--------------|-------|--------|-----|--------|----|----|-------|
|              | mm    | inch   | mm  | inch   | mm | mm |       |
| ADR-SP-00015 | 0.015 | 0.0006 | 0.2 | 0.0079 | 38 | 3  | ○     |
| ADR-SP-00025 | 0.025 | 0.0010 | 0.3 | 0.0118 | 38 | 3  | ○     |
| ADR-SP-00035 | 0.035 | 0.0014 | 0.4 | 0.0157 | 38 | 3  | ○     |
| ADR-SP-00045 | 0.045 | 0.0018 | 0.5 | 0.0197 | 38 | 3  | ○     |
| ADR-SP-00055 | 0.055 | 0.0022 | 0.6 | 0.0236 | 38 | 3  | ○     |
| ADR-SP-00065 | 0.065 | 0.0026 | 0.7 | 0.0276 | 38 | 3  | ○     |
| ADR-SP-00075 | 0.075 | 0.0030 | 0.8 | 0.0315 | 38 | 3  | ○     |
| ADR-SP-00085 | 0.085 | 0.0033 | 0.9 | 0.0354 | 38 | 3  | ○     |
| ADR-SP-00095 | 0.095 | 0.0037 | 1.2 | 0.0472 | 38 | 3  | ○     |
| ADR-SP-00105 | 0.105 | 0.0041 | 1.2 | 0.0472 | 38 | 3  | ○     |
| ADR-SP-00115 | 0.115 | 0.0045 | 1.4 | 0.0551 | 38 | 3  | ○     |
| ADR-SP-00125 | 0.125 | 0.0049 | 1.4 | 0.0551 | 38 | 3  | ○     |
| ADR-SP-00135 | 0.135 | 0.0053 | 1.4 | 0.0551 | 38 | 3  | ○     |
| ADR-SP-00145 | 0.145 | 0.0057 | 1.8 | 0.0709 | 38 | 3  | ○     |
| ADR-SP-00155 | 0.155 | 0.0061 | 1.8 | 0.0709 | 38 | 3  | ○     |
| ADR-SP-00165 | 0.165 | 0.0065 | 1.8 | 0.0709 | 38 | 3  | ○     |
| ADR-SP-00175 | 0.175 | 0.0069 | 2.1 | 0.0827 | 38 | 3  | ○     |
| ADR-SP-00185 | 0.185 | 0.0073 | 2.1 | 0.0827 | 38 | 3  | ○     |
| ADR-SP-00195 | 0.195 | 0.0077 | 2.4 | 0.0945 | 38 | 3  | ○     |
| ADR-SP-00205 | 0.205 | 0.0081 | 2.4 | 0.0945 | 38 | 3  | ○     |
| ADR-SP-00215 | 0.215 | 0.0085 | 2.6 | 0.1024 | 38 | 3  | ○     |
| ADR-SP-00225 | 0.225 | 0.0089 | 2.6 | 0.1024 | 38 | 3  | ○     |
| ADR-SP-00235 | 0.235 | 0.0093 | 2.6 | 0.1024 | 38 | 3  | ○     |
| ADR-SP-00245 | 0.245 | 0.0096 | 3   | 0.1181 | 38 | 3  | ○     |
| ADR-SP-00255 | 0.255 | 0.0100 | 3   | 0.1181 | 38 | 3  | ○     |
| ADR-SP-00265 | 0.265 | 0.0104 | 3   | 0.1181 | 38 | 3  | ○     |
| ADR-SP-00275 | 0.275 | 0.0108 | 3.3 | 0.1299 | 38 | 3  | ○     |
| ADR-SP-00285 | 0.285 | 0.0112 | 3.3 | 0.1299 | 38 | 3  | ○     |
| ADR-SP-00295 | 0.295 | 0.0116 | 5   | 0.1969 | 38 | 3  | ○     |
| ADR-SP-00305 | 0.305 | 0.0120 | 5   | 0.1969 | 38 | 3  | ○     |
| ADR-SP-00315 | 0.315 | 0.0124 | 5   | 0.1969 | 38 | 3  | ○     |
| ADR-SP-00325 | 0.325 | 0.0128 | 5   | 0.1969 | 38 | 3  | ○     |
| ADR-SP-00335 | 0.335 | 0.0132 | 5   | 0.1969 | 38 | 3  | ○     |
| ADR-SP-00345 | 0.345 | 0.0136 | 5   | 0.1969 | 38 | 3  | ○     |
| ADR-SP-00355 | 0.355 | 0.0140 | 5   | 0.1969 | 38 | 3  | ○     |
| ADR-SP-00365 | 0.365 | 0.0144 | 5   | 0.1969 | 38 | 3  | ○     |
| ADR-SP-00375 | 0.375 | 0.0148 | 5   | 0.1969 | 38 | 3  | ○     |
| ADR-SP-00385 | 0.385 | 0.0152 | 5   | 0.1969 | 38 | 3  | ○     |
| ADR-SP-00395 | 0.395 | 0.0156 | 6   | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00405 | 0.405 | 0.0159 | 6   | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00415 | 0.415 | 0.0163 | 6   | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00425 | 0.425 | 0.0167 | 6   | 0.2362 | 38 | 3  | ○     |

| Product No.  | ØD    |        | ℓ  |        | L  | d  | Stock |
|--------------|-------|--------|----|--------|----|----|-------|
|              | mm    | inch   | mm | inch   | mm | mm |       |
| ADR-SP-00435 | 0.435 | 0.0171 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00445 | 0.445 | 0.0175 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00455 | 0.455 | 0.0179 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00465 | 0.465 | 0.0183 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00475 | 0.475 | 0.0187 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00485 | 0.485 | 0.0191 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00495 | 0.495 | 0.0195 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00505 | 0.505 | 0.0199 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00515 | 0.515 | 0.0203 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00525 | 0.525 | 0.0207 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00535 | 0.535 | 0.0211 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00545 | 0.545 | 0.0215 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00555 | 0.555 | 0.0219 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00565 | 0.565 | 0.0222 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00575 | 0.575 | 0.0226 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00585 | 0.585 | 0.0230 | 6  | 0.2362 | 38 | 3  | ○     |
| ADR-SP-00595 | 0.595 | 0.0234 | 7  | 0.2756 | 38 | 3  | ○     |
| ADR-SP-00605 | 0.605 | 0.0238 | 7  | 0.2756 | 38 | 3  | ○     |
| ADR-SP-00615 | 0.615 | 0.0242 | 7  | 0.2756 | 38 | 3  | ○     |
| ADR-SP-00625 | 0.625 | 0.0246 | 7  | 0.2756 | 38 | 3  | ○     |
| ADR-SP-00635 | 0.635 | 0.0250 | 7  | 0.2756 | 38 | 3  | ○     |
| ADR-SP-00645 | 0.645 | 0.0254 | 7  | 0.2756 | 38 | 3  | ○     |
| ADR-SP-00655 | 0.655 | 0.0258 | 7  | 0.2756 | 38 | 3  | ○     |
| ADR-SP-00665 | 0.665 | 0.0262 | 7  | 0.2756 | 38 | 3  | ○     |
| ADR-SP-00675 | 0.675 | 0.0266 | 7  | 0.2756 | 38 | 3  | ○     |
| ADR-SP-00685 | 0.685 | 0.0270 | 7  | 0.2756 | 38 | 3  | ○     |
| ADR-SP-00695 | 0.695 | 0.0274 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00705 | 0.705 | 0.0278 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00715 | 0.715 | 0.0281 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00725 | 0.725 | 0.0285 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00735 | 0.735 | 0.0289 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00745 | 0.745 | 0.0293 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00755 | 0.755 | 0.0297 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00765 | 0.765 | 0.0301 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00775 | 0.775 | 0.0305 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00785 | 0.785 | 0.0309 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00795 | 0.795 | 0.0313 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00805 | 0.805 | 0.0317 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00815 | 0.815 | 0.0321 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00825 | 0.825 | 0.0325 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00835 | 0.835 | 0.0329 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00845 | 0.845 | 0.0333 | 8  | 0.3150 | 38 | 3  | ○     |

● US Stock Item ○ Japan Stock Item

# 3MM SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ⊙               | ⊙             |               | △               | △               | ⊙        |

⊙ Best ○ Good △ OK

| Product No.  | ØD    |        | ℓ  |        | L  | d  | Stock |
|--------------|-------|--------|----|--------|----|----|-------|
|              | mm    | inch   | mm | inch   | mm | mm |       |
| ADR-SP-00855 | 0.855 | 0.0337 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00865 | 0.865 | 0.0341 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00875 | 0.875 | 0.0344 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00885 | 0.885 | 0.0348 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00895 | 0.895 | 0.0352 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00905 | 0.905 | 0.0356 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00915 | 0.915 | 0.0360 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00925 | 0.925 | 0.0364 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00935 | 0.935 | 0.0368 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00945 | 0.945 | 0.0372 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00955 | 0.955 | 0.0376 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00965 | 0.965 | 0.0380 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00975 | 0.975 | 0.0384 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00985 | 0.985 | 0.0388 | 8  | 0.3150 | 38 | 3  | ○     |
| ADR-SP-00995 | 0.995 | 0.0392 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01005 | 1.005 | 0.0396 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01015 | 1.015 | 0.0400 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01025 | 1.025 | 0.0404 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01035 | 1.035 | 0.0407 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01045 | 1.045 | 0.0411 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01055 | 1.055 | 0.0415 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01065 | 1.065 | 0.0419 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01075 | 1.075 | 0.0423 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01085 | 1.085 | 0.0427 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01095 | 1.095 | 0.0431 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01105 | 1.105 | 0.0435 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01115 | 1.115 | 0.0439 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01125 | 1.125 | 0.0443 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01135 | 1.135 | 0.0447 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01145 | 1.145 | 0.0451 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01155 | 1.155 | 0.0455 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01165 | 1.165 | 0.0459 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01175 | 1.175 | 0.0463 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01185 | 1.185 | 0.0467 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01195 | 1.195 | 0.0470 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01205 | 1.205 | 0.0474 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01215 | 1.215 | 0.0478 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01225 | 1.225 | 0.0482 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01235 | 1.235 | 0.0486 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01245 | 1.245 | 0.0490 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01255 | 1.255 | 0.0494 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01265 | 1.265 | 0.0498 | 10 | 0.3937 | 38 | 3  | ○     |

| Product No.  | ØD    |        | ℓ  |        | L  | d  | Stock |
|--------------|-------|--------|----|--------|----|----|-------|
|              | mm    | inch   | mm | inch   | mm | mm |       |
| ADR-SP-01275 | 1.275 | 0.0502 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01285 | 1.285 | 0.0506 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01295 | 1.295 | 0.0510 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01305 | 1.305 | 0.0514 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01315 | 1.315 | 0.0518 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01325 | 1.325 | 0.0522 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01335 | 1.335 | 0.0526 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01345 | 1.345 | 0.0530 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01355 | 1.355 | 0.0533 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01365 | 1.365 | 0.0537 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01375 | 1.375 | 0.0541 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01385 | 1.385 | 0.0545 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01395 | 1.395 | 0.0549 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01405 | 1.405 | 0.0553 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01415 | 1.415 | 0.0557 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01425 | 1.425 | 0.0561 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01435 | 1.435 | 0.0565 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01445 | 1.445 | 0.0569 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01455 | 1.455 | 0.0573 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01465 | 1.465 | 0.0577 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01475 | 1.475 | 0.0581 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01485 | 1.485 | 0.0585 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01495 | 1.495 | 0.0589 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01505 | 1.505 | 0.0593 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01515 | 1.515 | 0.0596 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01525 | 1.525 | 0.0600 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01535 | 1.535 | 0.0604 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01545 | 1.545 | 0.0608 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01555 | 1.555 | 0.0612 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01565 | 1.565 | 0.0616 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01575 | 1.575 | 0.0620 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01585 | 1.585 | 0.0624 | 10 | 0.3937 | 38 | 3  | ○     |
| ADR-SP-01595 | 1.595 | 0.0628 | 22 | 0.8661 | 50 | 3  | ○     |
| ADR-SP-01605 | 1.605 | 0.0632 | 22 | 0.8661 | 50 | 3  | ○     |
| ADR-SP-01615 | 1.615 | 0.0636 | 22 | 0.8661 | 50 | 3  | ○     |
| ADR-SP-01625 | 1.625 | 0.0640 | 22 | 0.8661 | 50 | 3  | ○     |
| ADR-SP-01635 | 1.635 | 0.0644 | 22 | 0.8661 | 50 | 3  | ○     |
| ADR-SP-01645 | 1.645 | 0.0648 | 22 | 0.8661 | 50 | 3  | ○     |
| ADR-SP-01655 | 1.655 | 0.0652 | 22 | 0.8661 | 50 | 3  | ○     |
| ADR-SP-01665 | 1.665 | 0.0656 | 22 | 0.8661 | 50 | 3  | ○     |
| ADR-SP-01675 | 1.675 | 0.0659 | 22 | 0.8661 | 50 | 3  | ○     |
| ADR-SP-01685 | 1.685 | 0.0663 | 22 | 0.8661 | 50 | 3  | ○     |

● US Stock Item ○ Japan Stock Item

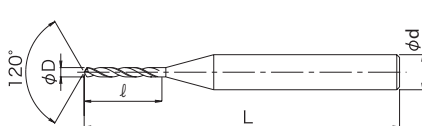
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Cutting Conditions P.130

# 3MM SHANK DRILLS

## ADR-SP (Cont.)

SUPER PRECISION, UNCOATED, FOR NON-FERROUS MATERIALS



For drills 0.045 mm diameter and smaller, there is an intermediate neck diameter.

ØD Tolerance: +0/-0.003 mm  
Runout Accuracy: ≤0.002 mm  
Lip Height difference: ≤0.002 mm

| Product No.  | ØD    |        | ℓ  |        | L  | d | Stock |
|--------------|-------|--------|----|--------|----|---|-------|
|              | mm    | inch   | mm | inch   |    |   |       |
| ADR-SP-01695 | 1.695 | 0.0667 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01705 | 1.705 | 0.0671 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01715 | 1.715 | 0.0675 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01725 | 1.725 | 0.0679 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01735 | 1.735 | 0.0683 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01745 | 1.745 | 0.0687 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01755 | 1.755 | 0.0691 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01765 | 1.765 | 0.0695 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01775 | 1.775 | 0.0699 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01785 | 1.785 | 0.0703 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01795 | 1.795 | 0.0707 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01805 | 1.805 | 0.0711 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01815 | 1.815 | 0.0715 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01825 | 1.825 | 0.0719 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01835 | 1.835 | 0.0722 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01845 | 1.845 | 0.0726 | 22 | 0.8661 | 50 | 3 | ○     |

● US Stock Item ○ Japan Stock Item

| Product No.  | ØD    |        | ℓ  |        | L  | d | Stock |
|--------------|-------|--------|----|--------|----|---|-------|
|              | mm    | inch   | mm | inch   |    |   |       |
| ADR-SP-01855 | 1.855 | 0.0730 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01865 | 1.865 | 0.0734 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01875 | 1.875 | 0.0738 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01885 | 1.885 | 0.0742 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01895 | 1.895 | 0.0746 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01905 | 1.905 | 0.0750 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01915 | 1.915 | 0.0754 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01925 | 1.925 | 0.0758 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01935 | 1.935 | 0.0762 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01945 | 1.945 | 0.0766 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01955 | 1.955 | 0.0770 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01965 | 1.965 | 0.0774 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01975 | 1.975 | 0.0778 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01985 | 1.985 | 0.0781 | 22 | 0.8661 | 50 | 3 | ○     |
| ADR-SP-01995 | 1.995 | 0.0785 | 22 | 0.8661 | 50 | 3 | ○     |

# 3MM SHANK DRILLS

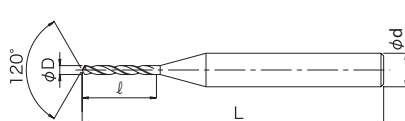
| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ⊙               | ⊙             |               | △               | △               | ⊙        |

⊙ Best   ○ Good   △ OK

3mm Shank Drills

# ADR-DLC

REGULAR, DLC COATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.005 mm

| Product No.  | ØD   |        | ℓ   |        | L  | d  | Stock |
|--------------|------|--------|-----|--------|----|----|-------|
|              | mm   | inch   | mm  | inch   | mm | mm |       |
| ADR-DLC-0010 | 0.10 | 0.0039 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADR-DLC-0011 | 0.11 | 0.0043 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADR-DLC-0012 | 0.12 | 0.0047 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADR-DLC-0013 | 0.13 | 0.0051 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADR-DLC-0014 | 0.14 | 0.0055 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADR-DLC-0015 | 0.15 | 0.0059 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-DLC-0016 | 0.16 | 0.0063 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-DLC-0017 | 0.17 | 0.0067 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-DLC-0018 | 0.18 | 0.0071 | 2.1 | 0.0827 | 38 | 3  | ●     |
| ADR-DLC-0019 | 0.19 | 0.0075 | 2.1 | 0.0827 | 38 | 3  | ●     |
| ADR-DLC-0020 | 0.20 | 0.0079 | 2.4 | 0.0945 | 38 | 3  | ●     |
| ADR-DLC-0021 | 0.21 | 0.0083 | 2.4 | 0.0945 | 38 | 3  | ●     |
| ADR-DLC-0022 | 0.22 | 0.0087 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ADR-DLC-0023 | 0.23 | 0.0091 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ADR-DLC-0024 | 0.24 | 0.0094 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ADR-DLC-0025 | 0.25 | 0.0098 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-DLC-0026 | 0.26 | 0.0102 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-DLC-0027 | 0.27 | 0.0106 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-DLC-0028 | 0.28 | 0.0110 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADR-DLC-0029 | 0.29 | 0.0114 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADR-DLC-0030 | 0.30 | 0.0118 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-DLC-0031 | 0.31 | 0.0122 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-DLC-0032 | 0.32 | 0.0126 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-DLC-0033 | 0.33 | 0.0130 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-DLC-0034 | 0.34 | 0.0134 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-DLC-0035 | 0.35 | 0.0138 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-DLC-0036 | 0.36 | 0.0142 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-DLC-0037 | 0.37 | 0.0146 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-DLC-0038 | 0.38 | 0.0150 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-DLC-0039 | 0.39 | 0.0154 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-DLC-0040 | 0.40 | 0.0157 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0041 | 0.41 | 0.0161 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0042 | 0.42 | 0.0165 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0043 | 0.43 | 0.0169 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0044 | 0.44 | 0.0173 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0045 | 0.45 | 0.0177 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0046 | 0.46 | 0.0181 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0047 | 0.47 | 0.0185 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0048 | 0.48 | 0.0189 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0049 | 0.49 | 0.0193 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0050 | 0.50 | 0.0197 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0051 | 0.51 | 0.0201 | 6   | 0.2362 | 38 | 3  | ●     |

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-DLC-0052 | 0.52 | 0.0205 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0053 | 0.53 | 0.0209 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0054 | 0.54 | 0.0213 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0055 | 0.55 | 0.0217 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0056 | 0.56 | 0.0220 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0057 | 0.57 | 0.0224 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0058 | 0.58 | 0.0228 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0059 | 0.59 | 0.0232 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-DLC-0060 | 0.60 | 0.0236 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-DLC-0061 | 0.61 | 0.0240 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-DLC-0062 | 0.62 | 0.0244 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-DLC-0063 | 0.63 | 0.0248 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-DLC-0064 | 0.64 | 0.0252 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-DLC-0065 | 0.65 | 0.0256 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-DLC-0066 | 0.66 | 0.0260 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-DLC-0067 | 0.67 | 0.0264 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-DLC-0068 | 0.68 | 0.0268 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-DLC-0069 | 0.69 | 0.0272 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-DLC-0070 | 0.70 | 0.0276 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0071 | 0.71 | 0.0280 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0072 | 0.72 | 0.0283 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0073 | 0.73 | 0.0287 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0074 | 0.74 | 0.0291 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0075 | 0.75 | 0.0295 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0076 | 0.76 | 0.0299 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0077 | 0.77 | 0.0303 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0078 | 0.78 | 0.0307 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0079 | 0.79 | 0.0311 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0080 | 0.80 | 0.0315 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0081 | 0.81 | 0.0319 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0082 | 0.82 | 0.0323 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0083 | 0.83 | 0.0327 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0084 | 0.84 | 0.0331 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0085 | 0.85 | 0.0335 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0086 | 0.86 | 0.0339 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0087 | 0.87 | 0.0343 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0088 | 0.88 | 0.0346 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0089 | 0.89 | 0.0350 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0090 | 0.90 | 0.0354 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0091 | 0.91 | 0.0358 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0092 | 0.92 | 0.0362 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0093 | 0.93 | 0.0366 | 8  | 0.3150 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
|               |              |             |                  |           | ⊙               | ○             |               |                 |                 | ○        |

⊙ Best   ○ Good   △ OK

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-DLC-0094 | 0.94 | 0.0370 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0095 | 0.95 | 0.0374 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0096 | 0.96 | 0.0378 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0097 | 0.97 | 0.0382 | 8  | 0.3150 | 38 | 3  | ●     |

● US Stock Item   ○ Japan Stock Item

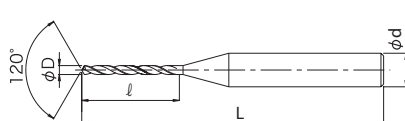
| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-DLC-0098 | 0.98 | 0.0386 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0099 | 0.99 | 0.0390 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-DLC-0100 | 1.00 | 0.0394 | 10 | 0.3937 | 38 | 3  | ●     |

3mm Shank Drills



# ADRL-DLC

LONG, DLC COATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.005 mm

| Product No.   | ØD   |        | ℓ   |        | L  | d  | Stock |
|---------------|------|--------|-----|--------|----|----|-------|
|               | mm   | inch   | mm  | inch   | mm | mm |       |
| ADRL-DLC-0010 | 0.10 | 0.0039 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRL-DLC-0011 | 0.11 | 0.0043 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRL-DLC-0012 | 0.12 | 0.0047 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-DLC-0013 | 0.13 | 0.0051 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-DLC-0014 | 0.14 | 0.0055 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-DLC-0015 | 0.15 | 0.0059 | 4   | 0.1575 | 38 | 3  | ●     |
| ADRL-DLC-0016 | 0.16 | 0.0063 | 4   | 0.1575 | 38 | 3  | ●     |
| ADRL-DLC-0017 | 0.17 | 0.0067 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-DLC-0018 | 0.18 | 0.0071 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-DLC-0019 | 0.19 | 0.0075 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-DLC-0020 | 0.20 | 0.0079 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-DLC-0021 | 0.21 | 0.0083 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-DLC-0022 | 0.22 | 0.0087 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-DLC-0023 | 0.23 | 0.0091 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-DLC-0024 | 0.24 | 0.0094 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-DLC-0025 | 0.25 | 0.0098 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-DLC-0026 | 0.26 | 0.0102 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-DLC-0027 | 0.27 | 0.0106 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-DLC-0028 | 0.28 | 0.0110 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-DLC-0029 | 0.29 | 0.0114 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-DLC-0030 | 0.30 | 0.0118 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-DLC-0031 | 0.31 | 0.0122 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-DLC-0032 | 0.32 | 0.0126 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-DLC-0033 | 0.33 | 0.0130 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-DLC-0034 | 0.34 | 0.0134 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-DLC-0035 | 0.35 | 0.0138 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-DLC-0036 | 0.36 | 0.0142 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-DLC-0037 | 0.37 | 0.0146 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-DLC-0038 | 0.38 | 0.0150 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-DLC-0039 | 0.39 | 0.0154 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-DLC-0040 | 0.40 | 0.0157 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0041 | 0.41 | 0.0161 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0042 | 0.42 | 0.0165 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0043 | 0.43 | 0.0169 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0044 | 0.44 | 0.0173 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0045 | 0.45 | 0.0177 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0046 | 0.46 | 0.0181 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0047 | 0.47 | 0.0185 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0048 | 0.48 | 0.0189 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0049 | 0.49 | 0.0193 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0050 | 0.50 | 0.0197 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0051 | 0.51 | 0.0201 | 12  | 0.4724 | 45 | 3  | ●     |

| Product No.   | ØD   |        | ℓ  |        | L  | d  | Stock |
|---------------|------|--------|----|--------|----|----|-------|
|               | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-DLC-0052 | 0.52 | 0.0205 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0053 | 0.53 | 0.0209 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0054 | 0.54 | 0.0213 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0055 | 0.55 | 0.0217 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0056 | 0.56 | 0.0220 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0057 | 0.57 | 0.0224 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0058 | 0.58 | 0.0228 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0059 | 0.59 | 0.0232 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-DLC-0060 | 0.60 | 0.0236 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0061 | 0.61 | 0.0240 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0062 | 0.62 | 0.0244 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0063 | 0.63 | 0.0248 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0064 | 0.64 | 0.0252 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0065 | 0.65 | 0.0256 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0066 | 0.66 | 0.0260 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0067 | 0.67 | 0.0264 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0068 | 0.68 | 0.0268 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0069 | 0.69 | 0.0272 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0070 | 0.70 | 0.0276 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0071 | 0.71 | 0.0280 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0072 | 0.72 | 0.0283 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0073 | 0.73 | 0.0287 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0074 | 0.74 | 0.0291 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0075 | 0.75 | 0.0295 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0076 | 0.76 | 0.0299 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0077 | 0.77 | 0.0303 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0078 | 0.78 | 0.0307 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0079 | 0.79 | 0.0311 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0080 | 0.80 | 0.0315 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0081 | 0.81 | 0.0319 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0082 | 0.82 | 0.0323 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0083 | 0.83 | 0.0327 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0084 | 0.84 | 0.0331 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0085 | 0.85 | 0.0335 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0086 | 0.86 | 0.0339 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0087 | 0.87 | 0.0343 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0088 | 0.88 | 0.0346 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0089 | 0.89 | 0.0350 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0090 | 0.90 | 0.0354 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0091 | 0.91 | 0.0358 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0092 | 0.92 | 0.0362 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-DLC-0093 | 0.93 | 0.0366 | 15 | 0.5906 | 45 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
|               |              |             |                  |           | ◎               | ○             |               |                 |                 | ○        |

◎ Best ○ Good △ OK

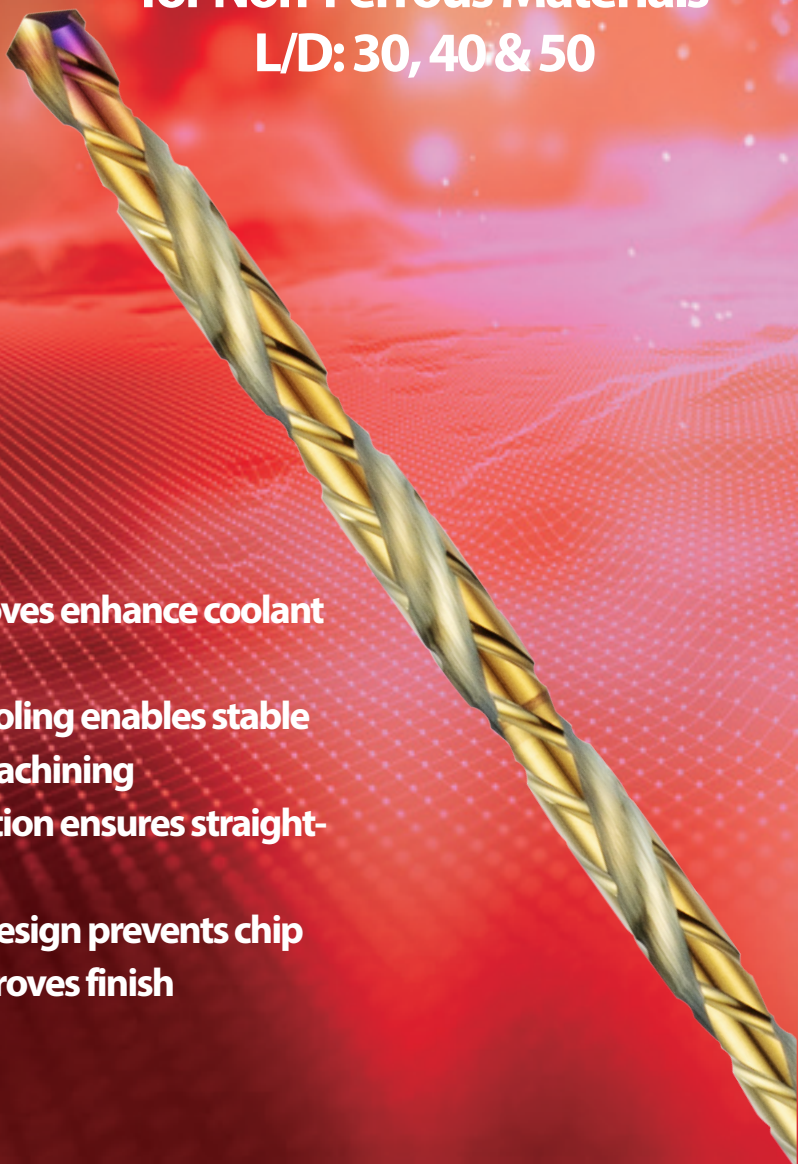
| Product No.   | ØD   |        | ℓ  |        | L  | d | Stock |
|---------------|------|--------|----|--------|----|---|-------|
|               | mm   | inch   | mm | inch   |    |   |       |
| ADRL-DLC-0094 | 0.94 | 0.0370 | 15 | 0.5906 | 45 | 3 | ●     |
| ADRL-DLC-0095 | 0.95 | 0.0374 | 15 | 0.5906 | 45 | 3 | ●     |
| ADRL-DLC-0096 | 0.96 | 0.0378 | 15 | 0.5906 | 45 | 3 | ●     |
| ADRL-DLC-0097 | 0.97 | 0.0382 | 15 | 0.5906 | 45 | 3 | ●     |

● US Stock Item ○ Japan Stock Item

| Product No.   | ØD   |        | ℓ  |        | L  | d | Stock |
|---------------|------|--------|----|--------|----|---|-------|
|               | mm   | inch   | mm | inch   |    |   |       |
| ADRL-DLC-0098 | 0.98 | 0.0386 | 15 | 0.5906 | 45 | 3 | ●     |
| ADRL-DLC-0099 | 0.99 | 0.0390 | 15 | 0.5906 | 45 | 3 | ●     |
| ADRL-DLC-0100 | 1.00 | 0.0394 | 20 | 0.7874 | 50 | 3 | ●     |

# SXG30/40/50DN

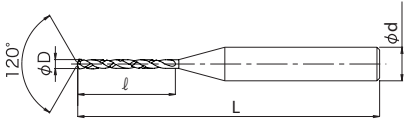
**Cross Groove Drill  
for Non-Ferrous Materials  
L/D: 30, 40 & 50**



- Reverse grooves enhance coolant supply
- Improved cooling enables stable deep-hole machining
- Reduced friction ensures straight-line stability
- Marginless design prevents chip bite and improves finish

SXG30DN

30XD, DLC COATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.005 mm

| Product No.  | ØD   |        | ℓ    |        | L  | d | Stock |
|--------------|------|--------|------|--------|----|---|-------|
|              | mm   | inch   | mm   | inch   |    |   |       |
| SXG30DN-0050 | 0.50 | 0.0197 | 16.5 | 0.6496 | 50 | 3 | ○     |
| SXG30DN-0060 | 0.60 | 0.0236 | 19.8 | 0.7795 | 50 | 3 | ○     |
| SXG30DN-0070 | 0.70 | 0.0276 | 23.1 | 0.9094 | 65 | 3 | ○     |
| SXG30DN-0080 | 0.80 | 0.0315 | 26.4 | 1.0394 | 65 | 3 | ○     |
| SXG30DN-0090 | 0.90 | 0.0354 | 29.7 | 1.1693 | 65 | 3 | ○     |
| SXG30DN-0100 | 1.00 | 0.0394 | 33   | 1.2992 | 65 | 3 | ○     |
| SXG30DN-0110 | 1.10 | 0.0433 | 36.3 | 1.4291 | 80 | 3 | ○     |
| SXG30DN-0120 | 1.20 | 0.0472 | 39.6 | 1.5591 | 80 | 3 | ○     |

● US Stock Item    ○ Japan Stock Item

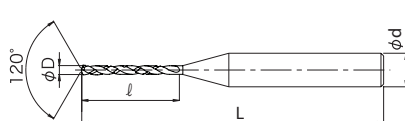
| Product No.  | ØD   |        | ℓ    |        | L   | d | Stock |
|--------------|------|--------|------|--------|-----|---|-------|
|              | mm   | inch   | mm   | inch   |     |   |       |
| SXG30DN-0130 | 1.30 | 0.0512 | 42.9 | 1.6890 | 80  | 3 | ○     |
| SXG30DN-0140 | 1.40 | 0.0551 | 46.2 | 1.8189 | 80  | 3 | ○     |
| SXG30DN-0150 | 1.50 | 0.0591 | 49.5 | 1.9488 | 80  | 3 | ○     |
| SXG30DN-0160 | 1.60 | 0.0630 | 52.8 | 2.0787 | 105 | 3 | ○     |
| SXG30DN-0170 | 1.70 | 0.0669 | 56.1 | 2.2087 | 105 | 3 | ○     |
| SXG30DN-0180 | 1.80 | 0.0709 | 59.4 | 2.3386 | 105 | 3 | ○     |
| SXG30DN-0190 | 1.90 | 0.0748 | 62.7 | 2.4685 | 105 | 3 | ○     |
| SXG30DN-0200 | 2.00 | 0.0787 | 66   | 2.5984 | 105 | 3 | ○     |

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
|               |              |             |                  |           | ◎               | ○             |               |                 |                 | ◎        |

◎ Best    ○ Good    △ OK

# SXG40DN

40XD, DLC COATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.005 mm

| Product No.  | ØD   |        | ℓ    |        | L   | d | Stock |
|--------------|------|--------|------|--------|-----|---|-------|
|              | mm   | inch   | mm   | inch   |     |   |       |
| SXG40DN-0050 | 0.50 | 0.0197 | 21.5 | 0.8465 | 65  | 3 | ○     |
| SXG40DN-0060 | 0.60 | 0.0236 | 25.8 | 1.0157 | 65  | 3 | ○     |
| SXG40DN-0070 | 0.70 | 0.0276 | 30.1 | 1.1850 | 65  | 3 | ○     |
| SXG40DN-0080 | 0.80 | 0.0315 | 34.4 | 1.3543 | 65  | 3 | ○     |
| SXG40DN-0090 | 0.90 | 0.0354 | 38.7 | 1.5236 | 80  | 3 | ○     |
| SXG40DN-0100 | 1.00 | 0.0394 | 43   | 1.6929 | 80  | 3 | ○     |
| SXG40DN-0110 | 1.10 | 0.0433 | 47.3 | 1.8622 | 80  | 3 | ○     |
| SXG40DN-0120 | 1.20 | 0.0472 | 51.6 | 2.0315 | 105 | 3 | ○     |

● US Stock Item ○ Japan Stock Item

| Product No.  | ØD   |        | ℓ    |        | L   | d | Stock |
|--------------|------|--------|------|--------|-----|---|-------|
|              | mm   | inch   | mm   | inch   |     |   |       |
| SXG40DN-0130 | 1.30 | 0.0512 | 55.9 | 2.2008 | 105 | 3 | ○     |
| SXG40DN-0140 | 1.40 | 0.0551 | 60.2 | 2.3701 | 105 | 3 | ○     |
| SXG40DN-0150 | 1.50 | 0.0591 | 64.5 | 2.5394 | 105 | 3 | ○     |
| SXG40DN-0160 | 1.60 | 0.0630 | 68.8 | 2.7087 | 105 | 3 | ○     |
| SXG40DN-0170 | 1.70 | 0.0669 | 73.1 | 2.8780 | 105 | 3 | ○     |
| SXG40DN-0180 | 1.80 | 0.0709 | 77.4 | 3.0472 | 120 | 3 | ○     |
| SXG40DN-0190 | 1.90 | 0.0748 | 81.7 | 3.2165 | 120 | 3 | ○     |
| SXG40DN-0200 | 2.00 | 0.0787 | 86   | 3.3858 | 120 | 3 | ○     |

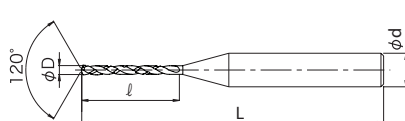
3mm Shank Drills

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
|               |              |             |                  |           | ◎               | ○             |               |                 |                 | ◎        |

◎ Best ○ Good △ OK

# SXG50DN

50XD, DLC COATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.005 mm

| Product No.  | ØD   |        | ℓ    |        | L   | d | Stock |
|--------------|------|--------|------|--------|-----|---|-------|
|              | mm   | inch   | mm   | inch   |     |   |       |
| SXG50DN-0050 | 0.50 | 0.0197 | 26.5 | 1.0433 | 65  | 3 | ○     |
| SXG50DN-0060 | 0.60 | 0.0236 | 31.8 | 1.2520 | 80  | 3 | ○     |
| SXG50DN-0070 | 0.70 | 0.0276 | 37.1 | 1.4606 | 80  | 3 | ○     |
| SXG50DN-0080 | 0.80 | 0.0315 | 42.4 | 1.6693 | 80  | 3 | ○     |
| SXG50DN-0090 | 0.90 | 0.0354 | 47.7 | 1.8780 | 105 | 3 | ○     |
| SXG50DN-0100 | 1.00 | 0.0394 | 53   | 2.0866 | 105 | 3 | ○     |
| SXG50DN-0110 | 1.10 | 0.0433 | 58.3 | 2.2953 | 105 | 3 | ○     |
| SXG50DN-0120 | 1.20 | 0.0472 | 63.6 | 2.5039 | 105 | 3 | ○     |

● US Stock Item ○ Japan Stock Item

| Product No.  | ØD   |        | ℓ     |        | L   | d | Stock |
|--------------|------|--------|-------|--------|-----|---|-------|
|              | mm   | inch   | mm    | inch   |     |   |       |
| SXG50DN-0130 | 1.30 | 0.0512 | 68.9  | 2.7126 | 120 | 3 | ○     |
| SXG50DN-0140 | 1.40 | 0.0551 | 74.2  | 2.9213 | 120 | 3 | ○     |
| SXG50DN-0150 | 1.50 | 0.0591 | 79.5  | 3.1299 | 120 | 3 | ○     |
| SXG50DN-0160 | 1.60 | 0.0630 | 84.8  | 3.3386 | 120 | 3 | ○     |
| SXG50DN-0170 | 1.70 | 0.0669 | 90.1  | 3.5472 | 150 | 3 | ○     |
| SXG50DN-0180 | 1.80 | 0.0709 | 95.4  | 3.7559 | 150 | 3 | ○     |
| SXG50DN-0190 | 1.90 | 0.0748 | 100.7 | 3.9646 | 150 | 3 | ○     |
| SXG50DN-0200 | 2.00 | 0.0787 | 106   | 4.1732 | 150 | 3 | ○     |

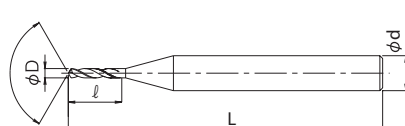
3mm Shank Drills

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
|               |              |             |                  |           | ◎               | ○             |               |                 |                 | ◎        |

◎ Best ○ Good △ OK

# ADRS-SV

SHORT, FCS COATED, FOR STEELS



ØD Tolerance:  
+0/-0.005 mm

| Product No.  | ØD   |        | ℓ   |        | L  | d  | Stock |
|--------------|------|--------|-----|--------|----|----|-------|
|              | mm   | inch   | mm  | inch   | mm | mm |       |
| ADRS-SV-0010 | 0.10 | 0.0039 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRS-SV-0011 | 0.11 | 0.0043 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRS-SV-0012 | 0.12 | 0.0047 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRS-SV-0013 | 0.13 | 0.0051 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRS-SV-0014 | 0.14 | 0.0055 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRS-SV-0015 | 0.15 | 0.0059 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRS-SV-0016 | 0.16 | 0.0063 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRS-SV-0017 | 0.17 | 0.0067 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRS-SV-0018 | 0.18 | 0.0071 | 1   | 0.0394 | 38 | 3  | ●     |
| ADRS-SV-0019 | 0.19 | 0.0075 | 1   | 0.0394 | 38 | 3  | ●     |
| ADRS-SV-0020 | 0.20 | 0.0079 | 1   | 0.0394 | 38 | 3  | ●     |
| ADRS-SV-0021 | 0.21 | 0.0083 | 1   | 0.0394 | 38 | 3  | ●     |
| ADRS-SV-0022 | 0.22 | 0.0087 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRS-SV-0023 | 0.23 | 0.0091 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRS-SV-0024 | 0.24 | 0.0094 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRS-SV-0025 | 0.25 | 0.0098 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRS-SV-0026 | 0.26 | 0.0102 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRS-SV-0027 | 0.27 | 0.0106 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRS-SV-0028 | 0.28 | 0.0110 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRS-SV-0029 | 0.29 | 0.0114 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRS-SV-0030 | 0.30 | 0.0118 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-SV-0031 | 0.31 | 0.0122 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-SV-0032 | 0.32 | 0.0126 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-SV-0033 | 0.33 | 0.0130 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-SV-0034 | 0.34 | 0.0134 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-SV-0035 | 0.35 | 0.0138 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-SV-0036 | 0.36 | 0.0142 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-SV-0037 | 0.37 | 0.0146 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-SV-0038 | 0.38 | 0.0150 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-SV-0039 | 0.39 | 0.0154 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRS-SV-0040 | 0.40 | 0.0157 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0041 | 0.41 | 0.0161 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0042 | 0.42 | 0.0165 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0043 | 0.43 | 0.0169 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0044 | 0.44 | 0.0173 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0045 | 0.45 | 0.0177 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0046 | 0.46 | 0.0181 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0047 | 0.47 | 0.0185 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0048 | 0.48 | 0.0189 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0049 | 0.49 | 0.0193 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0050 | 0.50 | 0.0197 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0051 | 0.51 | 0.0201 | 3   | 0.1181 | 38 | 3  | ●     |

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-SV-0052 | 0.52 | 0.0205 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0053 | 0.53 | 0.0209 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0054 | 0.54 | 0.0213 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0055 | 0.55 | 0.0217 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0056 | 0.56 | 0.0220 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0057 | 0.57 | 0.0224 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0058 | 0.58 | 0.0228 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0059 | 0.59 | 0.0232 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0060 | 0.60 | 0.0236 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0061 | 0.61 | 0.0240 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0062 | 0.62 | 0.0244 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0063 | 0.63 | 0.0248 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0064 | 0.64 | 0.0252 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0065 | 0.65 | 0.0256 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0066 | 0.66 | 0.0260 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0067 | 0.67 | 0.0264 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0068 | 0.68 | 0.0268 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0069 | 0.69 | 0.0272 | 3  | 0.1181 | 38 | 3  | ●     |
| ADRS-SV-0070 | 0.70 | 0.0276 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0071 | 0.71 | 0.0280 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0072 | 0.72 | 0.0283 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0073 | 0.73 | 0.0287 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0074 | 0.74 | 0.0291 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0075 | 0.75 | 0.0295 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0076 | 0.76 | 0.0299 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0077 | 0.77 | 0.0303 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0078 | 0.78 | 0.0307 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0079 | 0.79 | 0.0311 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0080 | 0.80 | 0.0315 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0081 | 0.81 | 0.0319 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0082 | 0.82 | 0.0323 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0083 | 0.83 | 0.0327 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0084 | 0.84 | 0.0331 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0085 | 0.85 | 0.0335 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0086 | 0.86 | 0.0339 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0087 | 0.87 | 0.0343 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0088 | 0.88 | 0.0346 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0089 | 0.89 | 0.0350 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0090 | 0.90 | 0.0354 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0091 | 0.91 | 0.0358 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0092 | 0.92 | 0.0362 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0093 | 0.93 | 0.0366 | 4  | 0.1575 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ◎             | ◎            | ○           | ◎                | ◎         |                 |               | ○             | ◎               | ◎               |          |

◎ Best ○ Good △ OK

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-SV-0094 | 0.94 | 0.0370 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0095 | 0.95 | 0.0374 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0096 | 0.96 | 0.0378 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0097 | 0.97 | 0.0382 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0098 | 0.98 | 0.0386 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0099 | 0.99 | 0.0390 | 4  | 0.1575 | 38 | 3  | ●     |
| ADRS-SV-0100 | 1.00 | 0.0394 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0101 | 1.01 | 0.0398 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0102 | 1.02 | 0.0402 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0103 | 1.03 | 0.0406 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0104 | 1.04 | 0.0409 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0105 | 1.05 | 0.0413 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0106 | 1.06 | 0.0417 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0107 | 1.07 | 0.0421 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0108 | 1.08 | 0.0425 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0109 | 1.09 | 0.0429 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0110 | 1.10 | 0.0433 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0111 | 1.11 | 0.0437 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0112 | 1.12 | 0.0441 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0113 | 1.13 | 0.0445 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0114 | 1.14 | 0.0449 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0115 | 1.15 | 0.0453 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0116 | 1.16 | 0.0457 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0117 | 1.17 | 0.0461 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0118 | 1.18 | 0.0465 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0119 | 1.19 | 0.0469 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0120 | 1.20 | 0.0472 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0121 | 1.21 | 0.0476 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0122 | 1.22 | 0.0480 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0123 | 1.23 | 0.0484 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0124 | 1.24 | 0.0488 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0125 | 1.25 | 0.0492 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0126 | 1.26 | 0.0496 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0127 | 1.27 | 0.0500 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0128 | 1.28 | 0.0504 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0129 | 1.29 | 0.0508 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0130 | 1.30 | 0.0512 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0131 | 1.31 | 0.0516 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0132 | 1.32 | 0.0520 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0133 | 1.33 | 0.0524 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0134 | 1.34 | 0.0528 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0135 | 1.35 | 0.0531 | 5  | 0.1969 | 38 | 3  | ●     |

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-SV-0136 | 1.36 | 0.0535 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0137 | 1.37 | 0.0539 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0138 | 1.38 | 0.0543 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0139 | 1.39 | 0.0547 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0140 | 1.40 | 0.0551 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0141 | 1.41 | 0.0555 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0142 | 1.42 | 0.0559 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0143 | 1.43 | 0.0563 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0144 | 1.44 | 0.0567 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0145 | 1.45 | 0.0571 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0146 | 1.46 | 0.0575 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0147 | 1.47 | 0.0579 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0148 | 1.48 | 0.0583 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0149 | 1.49 | 0.0587 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0150 | 1.50 | 0.0591 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0151 | 1.51 | 0.0594 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0152 | 1.52 | 0.0598 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0153 | 1.53 | 0.0602 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0154 | 1.54 | 0.0606 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0155 | 1.55 | 0.0610 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0156 | 1.56 | 0.0614 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0157 | 1.57 | 0.0618 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0158 | 1.58 | 0.0622 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0159 | 1.59 | 0.0626 | 5  | 0.1969 | 38 | 3  | ●     |
| ADRS-SV-0160 | 1.60 | 0.0630 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0161 | 1.61 | 0.0634 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0162 | 1.62 | 0.0638 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0163 | 1.63 | 0.0642 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0164 | 1.64 | 0.0646 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0165 | 1.65 | 0.0650 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0166 | 1.66 | 0.0654 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0167 | 1.67 | 0.0657 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0168 | 1.68 | 0.0661 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0169 | 1.69 | 0.0665 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0170 | 1.70 | 0.0669 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0171 | 1.71 | 0.0673 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0172 | 1.72 | 0.0677 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0173 | 1.73 | 0.0681 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0174 | 1.74 | 0.0685 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0175 | 1.75 | 0.0689 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0176 | 1.76 | 0.0693 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0177 | 1.77 | 0.0697 | 10 | 0.3937 | 38 | 3  | ●     |

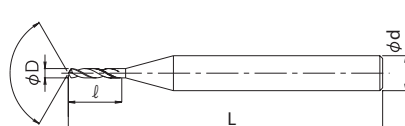
● US Stock Item ○ Japan Stock Item

Next Page ▶



# ADRS-SV (Cont.)

SHORT, FCS COATED, FOR STEELS



ØD Tolerance:  
+0/-0.005 mm

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-SV-0178 | 1.78 | 0.0701 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0179 | 1.79 | 0.0705 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0180 | 1.80 | 0.0709 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0181 | 1.81 | 0.0713 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0182 | 1.82 | 0.0717 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0183 | 1.83 | 0.0720 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0184 | 1.84 | 0.0724 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0185 | 1.85 | 0.0728 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0186 | 1.86 | 0.0732 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0187 | 1.87 | 0.0736 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0188 | 1.88 | 0.0740 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0189 | 1.89 | 0.0744 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0190 | 1.90 | 0.0748 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0191 | 1.91 | 0.0752 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0192 | 1.92 | 0.0756 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0193 | 1.93 | 0.0760 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0194 | 1.94 | 0.0764 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0195 | 1.95 | 0.0768 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0196 | 1.96 | 0.0772 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0197 | 1.97 | 0.0776 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0198 | 1.98 | 0.0780 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0199 | 1.99 | 0.0783 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0200 | 2.00 | 0.0787 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0201 | 2.01 | 0.0791 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0202 | 2.02 | 0.0795 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0203 | 2.03 | 0.0799 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0204 | 2.04 | 0.0803 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0205 | 2.05 | 0.0807 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0206 | 2.06 | 0.0811 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0207 | 2.07 | 0.0815 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0208 | 2.08 | 0.0819 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0209 | 2.09 | 0.0823 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0210 | 2.10 | 0.0827 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0211 | 2.11 | 0.0831 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0212 | 2.12 | 0.0835 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0213 | 2.13 | 0.0839 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0214 | 2.14 | 0.0843 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0215 | 2.15 | 0.0846 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0216 | 2.16 | 0.0850 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0217 | 2.17 | 0.0854 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0218 | 2.18 | 0.0858 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0219 | 2.19 | 0.0862 | 10 | 0.3937 | 38 | 3  | ●     |

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-SV-0220 | 2.20 | 0.0866 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0221 | 2.21 | 0.0870 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0222 | 2.22 | 0.0874 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0223 | 2.23 | 0.0878 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0224 | 2.24 | 0.0882 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0225 | 2.25 | 0.0886 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0226 | 2.26 | 0.0890 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0227 | 2.27 | 0.0894 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0228 | 2.28 | 0.0898 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0229 | 2.29 | 0.0902 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0230 | 2.30 | 0.0906 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0231 | 2.31 | 0.0909 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0232 | 2.32 | 0.0913 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0233 | 2.33 | 0.0917 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0234 | 2.34 | 0.0921 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0235 | 2.35 | 0.0925 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0236 | 2.36 | 0.0929 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0237 | 2.37 | 0.0933 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0238 | 2.38 | 0.0937 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0239 | 2.39 | 0.0941 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0240 | 2.40 | 0.0945 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0241 | 2.41 | 0.0949 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0242 | 2.42 | 0.0953 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0243 | 2.43 | 0.0957 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0244 | 2.44 | 0.0961 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0245 | 2.45 | 0.0965 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0246 | 2.46 | 0.0969 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0247 | 2.47 | 0.0972 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0248 | 2.48 | 0.0976 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0249 | 2.49 | 0.0980 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0250 | 2.50 | 0.0984 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0251 | 2.51 | 0.0988 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0252 | 2.52 | 0.0992 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0253 | 2.53 | 0.0996 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0254 | 2.54 | 0.1000 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0255 | 2.55 | 0.1004 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0256 | 2.56 | 0.1008 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0257 | 2.57 | 0.1012 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0258 | 2.58 | 0.1016 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0259 | 2.59 | 0.1020 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0260 | 2.60 | 0.1024 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0261 | 2.61 | 0.1028 | 10 | 0.3937 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ◎             | ◎            | ○           | ◎                | ◎         |                 |               | ○             | ◎               | ◎               |          |

◎ Best ○ Good △ OK

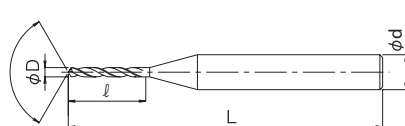
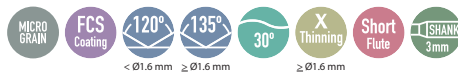
| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-SV-0262 | 2.62 | 0.1031 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0263 | 2.63 | 0.1035 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0264 | 2.64 | 0.1039 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0265 | 2.65 | 0.1043 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0266 | 2.66 | 0.1047 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0267 | 2.67 | 0.1051 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0268 | 2.68 | 0.1055 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0269 | 2.69 | 0.1059 | 10 | 0.3937 | 38 | 3  | ●     |
| ADRS-SV-0270 | 2.70 | 0.1063 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0271 | 2.71 | 0.1067 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0272 | 2.72 | 0.1071 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0273 | 2.73 | 0.1075 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0274 | 2.74 | 0.1079 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0275 | 2.75 | 0.1083 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0276 | 2.76 | 0.1087 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0277 | 2.77 | 0.1091 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0278 | 2.78 | 0.1094 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0279 | 2.79 | 0.1098 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0280 | 2.80 | 0.1102 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0281 | 2.81 | 0.1106 | 12 | 0.4724 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRS-SV-0282 | 2.82 | 0.1110 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0283 | 2.83 | 0.1114 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0284 | 2.84 | 0.1118 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0285 | 2.85 | 0.1122 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0286 | 2.86 | 0.1126 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0287 | 2.87 | 0.1130 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0288 | 2.88 | 0.1134 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0289 | 2.89 | 0.1138 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0290 | 2.90 | 0.1142 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0291 | 2.91 | 0.1146 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0292 | 2.92 | 0.1150 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0293 | 2.93 | 0.1154 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0294 | 2.94 | 0.1157 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0295 | 2.95 | 0.1161 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0296 | 2.96 | 0.1165 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0297 | 2.97 | 0.1169 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0298 | 2.98 | 0.1173 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0299 | 2.99 | 0.1177 | 12 | 0.4724 | 38 | 3  | ●     |
| ADRS-SV-0300 | 3.00 | 0.1181 | 12 | 0.4724 | 38 | 3  | ●     |

# ADR-SV

REGULAR, FCS COATED, FOR STEELS



ØD Tolerance:  
+0/-0.005 mm

For drills 0.09 mm diameter and smaller, there is an intermediate neck diameter.

3mm Shank Drills

| Product No. | ØD   |        | ℓ   |        | L  | d  | Stock |
|-------------|------|--------|-----|--------|----|----|-------|
|             | mm   | inch   | mm  | inch   | mm | mm |       |
| ADR-SV-0002 | 0.02 | 0.0008 | 0.2 | 0.0079 | 38 | 3  | ●     |
| ADR-SV-0003 | 0.03 | 0.0012 | 0.3 | 0.0118 | 38 | 3  | ●     |
| ADR-SV-0004 | 0.04 | 0.0016 | 0.4 | 0.0157 | 38 | 3  | ●     |
| ADR-SV-0005 | 0.05 | 0.0020 | 0.5 | 0.0197 | 38 | 3  | ●     |
| ADR-SV-0006 | 0.06 | 0.0024 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADR-SV-0007 | 0.07 | 0.0028 | 0.7 | 0.0276 | 38 | 3  | ●     |
| ADR-SV-0008 | 0.08 | 0.0031 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADR-SV-0009 | 0.09 | 0.0035 | 0.9 | 0.0354 | 38 | 3  | ●     |
| ADR-SV-0010 | 0.10 | 0.0039 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADR-SV-0011 | 0.11 | 0.0043 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADR-SV-0012 | 0.12 | 0.0047 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADR-SV-0013 | 0.13 | 0.0051 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADR-SV-0014 | 0.14 | 0.0055 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADR-SV-0015 | 0.15 | 0.0059 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-SV-0016 | 0.16 | 0.0063 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-SV-0017 | 0.17 | 0.0067 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-SV-0018 | 0.18 | 0.0071 | 2.1 | 0.0827 | 38 | 3  | ●     |
| ADR-SV-0019 | 0.19 | 0.0075 | 2.1 | 0.0827 | 38 | 3  | ●     |
| ADR-SV-0020 | 0.20 | 0.0079 | 2.4 | 0.0945 | 38 | 3  | ●     |
| ADR-SV-0021 | 0.21 | 0.0083 | 2.4 | 0.0945 | 38 | 3  | ●     |
| ADR-SV-0022 | 0.22 | 0.0087 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ADR-SV-0023 | 0.23 | 0.0091 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ADR-SV-0024 | 0.24 | 0.0094 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ADR-SV-0025 | 0.25 | 0.0098 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-SV-0026 | 0.26 | 0.0102 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-SV-0027 | 0.27 | 0.0106 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-SV-0028 | 0.28 | 0.0110 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADR-SV-0029 | 0.29 | 0.0114 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADR-SV-0030 | 0.30 | 0.0118 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SV-0031 | 0.31 | 0.0122 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SV-0032 | 0.32 | 0.0126 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SV-0033 | 0.33 | 0.0130 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SV-0034 | 0.34 | 0.0134 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SV-0035 | 0.35 | 0.0138 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SV-0036 | 0.36 | 0.0142 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SV-0037 | 0.37 | 0.0146 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SV-0038 | 0.38 | 0.0150 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SV-0039 | 0.39 | 0.0154 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SV-0040 | 0.40 | 0.0157 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0041 | 0.41 | 0.0161 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0042 | 0.42 | 0.0165 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0043 | 0.43 | 0.0169 | 6   | 0.2362 | 38 | 3  | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SV-0044 | 0.44 | 0.0173 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0045 | 0.45 | 0.0177 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0046 | 0.46 | 0.0181 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0047 | 0.47 | 0.0185 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0048 | 0.48 | 0.0189 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0049 | 0.49 | 0.0193 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0050 | 0.50 | 0.0197 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0051 | 0.51 | 0.0201 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0052 | 0.52 | 0.0205 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0053 | 0.53 | 0.0209 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0054 | 0.54 | 0.0213 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0055 | 0.55 | 0.0217 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0056 | 0.56 | 0.0220 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0057 | 0.57 | 0.0224 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0058 | 0.58 | 0.0228 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0059 | 0.59 | 0.0232 | 6  | 0.2362 | 38 | 3  | ●     |
| ADR-SV-0060 | 0.60 | 0.0236 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-SV-0061 | 0.61 | 0.0240 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-SV-0062 | 0.62 | 0.0244 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-SV-0063 | 0.63 | 0.0248 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-SV-0064 | 0.64 | 0.0252 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-SV-0065 | 0.65 | 0.0256 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-SV-0066 | 0.66 | 0.0260 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-SV-0067 | 0.67 | 0.0264 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-SV-0068 | 0.68 | 0.0268 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-SV-0069 | 0.69 | 0.0272 | 7  | 0.2756 | 38 | 3  | ●     |
| ADR-SV-0070 | 0.70 | 0.0276 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0071 | 0.71 | 0.0280 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0072 | 0.72 | 0.0283 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0073 | 0.73 | 0.0287 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0074 | 0.74 | 0.0291 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0075 | 0.75 | 0.0295 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0076 | 0.76 | 0.0299 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0077 | 0.77 | 0.0303 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0078 | 0.78 | 0.0307 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0079 | 0.79 | 0.0311 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0080 | 0.80 | 0.0315 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0081 | 0.81 | 0.0319 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0082 | 0.82 | 0.0323 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0083 | 0.83 | 0.0327 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0084 | 0.84 | 0.0331 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0085 | 0.85 | 0.0335 | 8  | 0.3150 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ◎             | ◎            | ○           | ◎                | ◎         |                 |               | ○             | ◎               | ◎               |          |

◎ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SV-0086 | 0.86 | 0.0339 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0087 | 0.87 | 0.0343 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0088 | 0.88 | 0.0346 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0089 | 0.89 | 0.0350 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0090 | 0.90 | 0.0354 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0091 | 0.91 | 0.0358 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0092 | 0.92 | 0.0362 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0093 | 0.93 | 0.0366 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0094 | 0.94 | 0.0370 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0095 | 0.95 | 0.0374 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0096 | 0.96 | 0.0378 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0097 | 0.97 | 0.0382 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0098 | 0.98 | 0.0386 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0099 | 0.99 | 0.0390 | 8  | 0.3150 | 38 | 3  | ●     |
| ADR-SV-0100 | 1.00 | 0.0394 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0101 | 1.01 | 0.0398 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0102 | 1.02 | 0.0402 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0103 | 1.03 | 0.0406 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0104 | 1.04 | 0.0409 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0105 | 1.05 | 0.0413 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0106 | 1.06 | 0.0417 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0107 | 1.07 | 0.0421 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0108 | 1.08 | 0.0425 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0109 | 1.09 | 0.0429 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0110 | 1.10 | 0.0433 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0111 | 1.11 | 0.0437 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0112 | 1.12 | 0.0441 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0113 | 1.13 | 0.0445 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0114 | 1.14 | 0.0449 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0115 | 1.15 | 0.0453 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0116 | 1.16 | 0.0457 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0117 | 1.17 | 0.0461 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0118 | 1.18 | 0.0465 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0119 | 1.19 | 0.0469 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0120 | 1.20 | 0.0472 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0121 | 1.21 | 0.0476 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0122 | 1.22 | 0.0480 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0123 | 1.23 | 0.0484 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0124 | 1.24 | 0.0488 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0125 | 1.25 | 0.0492 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0126 | 1.26 | 0.0496 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0127 | 1.27 | 0.0500 | 10 | 0.3937 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SV-0128 | 1.28 | 0.0504 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0129 | 1.29 | 0.0508 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0130 | 1.30 | 0.0512 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0131 | 1.31 | 0.0516 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0132 | 1.32 | 0.0520 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0133 | 1.33 | 0.0524 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0134 | 1.34 | 0.0528 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0135 | 1.35 | 0.0531 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0136 | 1.36 | 0.0535 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0137 | 1.37 | 0.0539 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0138 | 1.38 | 0.0543 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0139 | 1.39 | 0.0547 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0140 | 1.40 | 0.0551 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0141 | 1.41 | 0.0555 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0142 | 1.42 | 0.0559 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0143 | 1.43 | 0.0563 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0144 | 1.44 | 0.0567 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0145 | 1.45 | 0.0571 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0146 | 1.46 | 0.0575 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0147 | 1.47 | 0.0579 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0148 | 1.48 | 0.0583 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0149 | 1.49 | 0.0587 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0150 | 1.50 | 0.0591 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0151 | 1.51 | 0.0594 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0152 | 1.52 | 0.0598 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0153 | 1.53 | 0.0602 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0154 | 1.54 | 0.0606 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0155 | 1.55 | 0.0610 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0156 | 1.56 | 0.0614 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0157 | 1.57 | 0.0618 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0158 | 1.58 | 0.0622 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0159 | 1.59 | 0.0626 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SV-0160 | 1.60 | 0.0630 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0161 | 1.61 | 0.0634 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0162 | 1.62 | 0.0638 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0163 | 1.63 | 0.0642 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0164 | 1.64 | 0.0646 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0165 | 1.65 | 0.0650 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0166 | 1.66 | 0.0654 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0167 | 1.67 | 0.0657 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0168 | 1.68 | 0.0661 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0169 | 1.69 | 0.0665 | 16 | 0.6299 | 45 | 3  | ●     |

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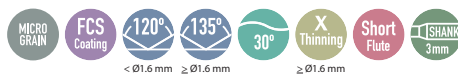
## ADR-SV (Cont.)

REGULAR, FCS COATED, FOR STEELS



ØD Tolerance:  
+0/-0.005 mm

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SV-0170 | 1.70 | 0.0669 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0171 | 1.71 | 0.0673 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0172 | 1.72 | 0.0677 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0173 | 1.73 | 0.0681 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0174 | 1.74 | 0.0685 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0175 | 1.75 | 0.0689 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0176 | 1.76 | 0.0693 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0177 | 1.77 | 0.0697 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0178 | 1.78 | 0.0701 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0179 | 1.79 | 0.0705 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0180 | 1.80 | 0.0709 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0181 | 1.81 | 0.0713 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0182 | 1.82 | 0.0717 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0183 | 1.83 | 0.0720 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0184 | 1.84 | 0.0724 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0185 | 1.85 | 0.0728 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0186 | 1.86 | 0.0732 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0187 | 1.87 | 0.0736 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0188 | 1.88 | 0.0740 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0189 | 1.89 | 0.0744 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0190 | 1.90 | 0.0748 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0191 | 1.91 | 0.0752 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0192 | 1.92 | 0.0756 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0193 | 1.93 | 0.0760 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0194 | 1.94 | 0.0764 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0195 | 1.95 | 0.0768 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0196 | 1.96 | 0.0772 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0197 | 1.97 | 0.0776 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0198 | 1.98 | 0.0780 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0199 | 1.99 | 0.0783 | 16 | 0.6299 | 45 | 3  | ●     |
| ADR-SV-0200 | 2.00 | 0.0787 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0201 | 2.01 | 0.0791 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0202 | 2.02 | 0.0795 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0203 | 2.03 | 0.0799 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0204 | 2.04 | 0.0803 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0205 | 2.05 | 0.0807 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0206 | 2.06 | 0.0811 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0207 | 2.07 | 0.0815 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0208 | 2.08 | 0.0819 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0209 | 2.09 | 0.0823 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0210 | 2.10 | 0.0827 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0211 | 2.11 | 0.0831 | 22 | 0.8661 | 50 | 3  | ●     |



For drills 0.09 mm diameter and smaller, there is an intermediate neck diameter.

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SV-0212 | 2.12 | 0.0835 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0213 | 2.13 | 0.0839 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0214 | 2.14 | 0.0843 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0215 | 2.15 | 0.0846 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0216 | 2.16 | 0.0850 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0217 | 2.17 | 0.0854 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0218 | 2.18 | 0.0858 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0219 | 2.19 | 0.0862 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0220 | 2.20 | 0.0866 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0221 | 2.21 | 0.0870 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0222 | 2.22 | 0.0874 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0223 | 2.23 | 0.0878 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0224 | 2.24 | 0.0882 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0225 | 2.25 | 0.0886 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0226 | 2.26 | 0.0890 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0227 | 2.27 | 0.0894 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0228 | 2.28 | 0.0898 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0229 | 2.29 | 0.0902 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0230 | 2.30 | 0.0906 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0231 | 2.31 | 0.0909 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0232 | 2.32 | 0.0913 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0233 | 2.33 | 0.0917 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0234 | 2.34 | 0.0921 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0235 | 2.35 | 0.0925 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0236 | 2.36 | 0.0929 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0237 | 2.37 | 0.0933 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0238 | 2.38 | 0.0937 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0239 | 2.39 | 0.0941 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0240 | 2.40 | 0.0945 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0241 | 2.41 | 0.0949 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0242 | 2.42 | 0.0953 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0243 | 2.43 | 0.0957 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0244 | 2.44 | 0.0961 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0245 | 2.45 | 0.0965 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0246 | 2.46 | 0.0969 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0247 | 2.47 | 0.0972 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0248 | 2.48 | 0.0976 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0249 | 2.49 | 0.0980 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0250 | 2.50 | 0.0984 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0251 | 2.51 | 0.0988 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0252 | 2.52 | 0.0992 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0253 | 2.53 | 0.0996 | 22 | 0.8661 | 50 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ☉             | ☉            | ○           | ☉                | ☉         |                 |               | ○             | ☉               | ☉               |          |

☉ Best ○ Good △ OK

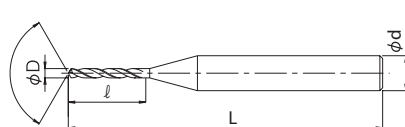
| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SV-0254 | 2.54 | 0.1000 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0255 | 2.55 | 0.1004 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0256 | 2.56 | 0.1008 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0257 | 2.57 | 0.1012 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0258 | 2.58 | 0.1016 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0259 | 2.59 | 0.1020 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0260 | 2.60 | 0.1024 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0261 | 2.61 | 0.1028 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0262 | 2.62 | 0.1031 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0263 | 2.63 | 0.1035 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0264 | 2.64 | 0.1039 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0265 | 2.65 | 0.1043 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0266 | 2.66 | 0.1047 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0267 | 2.67 | 0.1051 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0268 | 2.68 | 0.1055 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0269 | 2.69 | 0.1059 | 22 | 0.8661 | 50 | 3  | ●     |
| ADR-SV-0270 | 2.70 | 0.1063 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0271 | 2.71 | 0.1067 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0272 | 2.72 | 0.1071 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0273 | 2.73 | 0.1075 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0274 | 2.74 | 0.1079 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0275 | 2.75 | 0.1083 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0276 | 2.76 | 0.1087 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0277 | 2.77 | 0.1091 | 25 | 0.9843 | 50 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SV-0278 | 2.78 | 0.1094 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0279 | 2.79 | 0.1098 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0280 | 2.80 | 0.1102 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0281 | 2.81 | 0.1106 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0282 | 2.82 | 0.1110 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0283 | 2.83 | 0.1114 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0284 | 2.84 | 0.1118 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0285 | 2.85 | 0.1122 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0286 | 2.86 | 0.1126 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0287 | 2.87 | 0.1130 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0288 | 2.88 | 0.1134 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0289 | 2.89 | 0.1138 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0290 | 2.90 | 0.1142 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0291 | 2.91 | 0.1146 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0292 | 2.92 | 0.1150 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0293 | 2.93 | 0.1154 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0294 | 2.94 | 0.1157 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0295 | 2.95 | 0.1161 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0296 | 2.96 | 0.1165 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0297 | 2.97 | 0.1169 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0298 | 2.98 | 0.1173 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0299 | 2.99 | 0.1177 | 25 | 0.9843 | 50 | 3  | ●     |
| ADR-SV-0300 | 3.00 | 0.1181 | 25 | 0.9843 | 50 | 3  | ●     |

# ADRSL-SV

SEMI LONG, FCS COATED, FOR STEELS



For drills 0.09 mm diameter and smaller, there is an intermediate neck diameter.

ØD Tolerance:  
+0/-0.005 mm

| Product No.   | ØD   |        | ℓ   |        | L  | d  | Stock |
|---------------|------|--------|-----|--------|----|----|-------|
|               | mm   | inch   | mm  | inch   | mm | mm |       |
| ADRSL-SV-0003 | 0.03 | 0.0012 | 0.5 | 0.0197 | 38 | 3  | ●     |
| ADRSL-SV-0004 | 0.04 | 0.0016 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRSL-SV-0005 | 0.05 | 0.0020 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRSL-SV-0006 | 0.06 | 0.0024 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRSL-SV-0007 | 0.07 | 0.0028 | 1.1 | 0.0433 | 38 | 3  | ●     |
| ADRSL-SV-0008 | 0.08 | 0.0031 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRSL-SV-0009 | 0.09 | 0.0035 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRSL-SV-0010 | 0.10 | 0.0039 | 1.9 | 0.0748 | 38 | 3  | ●     |
| ADRSL-SV-0011 | 0.11 | 0.0043 | 1.9 | 0.0748 | 38 | 3  | ●     |
| ADRSL-SV-0012 | 0.12 | 0.0047 | 2.2 | 0.0866 | 38 | 3  | ●     |
| ADRSL-SV-0013 | 0.13 | 0.0051 | 2.2 | 0.0866 | 38 | 3  | ●     |
| ADRSL-SV-0014 | 0.14 | 0.0055 | 2.2 | 0.0866 | 38 | 3  | ●     |
| ADRSL-SV-0015 | 0.15 | 0.0059 | 2.9 | 0.1142 | 38 | 3  | ●     |
| ADRSL-SV-0016 | 0.16 | 0.0063 | 2.9 | 0.1142 | 38 | 3  | ●     |
| ADRSL-SV-0017 | 0.17 | 0.0067 | 3.2 | 0.1260 | 38 | 3  | ●     |
| ADRSL-SV-0018 | 0.18 | 0.0071 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADRSL-SV-0019 | 0.19 | 0.0075 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADRSL-SV-0020 | 0.20 | 0.0079 | 4   | 0.1575 | 38 | 3  | ●     |
| ADRSL-SV-0021 | 0.21 | 0.0083 | 4   | 0.1575 | 38 | 3  | ●     |
| ADRSL-SV-0022 | 0.22 | 0.0087 | 4.3 | 0.1693 | 38 | 3  | ●     |
| ADRSL-SV-0023 | 0.23 | 0.0091 | 4.3 | 0.1693 | 38 | 3  | ●     |
| ADRSL-SV-0024 | 0.24 | 0.0094 | 4.3 | 0.1693 | 38 | 3  | ●     |
| ADRSL-SV-0025 | 0.25 | 0.0098 | 5   | 0.1969 | 38 | 3  | ●     |
| ADRSL-SV-0026 | 0.26 | 0.0102 | 5   | 0.1969 | 38 | 3  | ●     |
| ADRSL-SV-0027 | 0.27 | 0.0106 | 5   | 0.1969 | 38 | 3  | ●     |
| ADRSL-SV-0028 | 0.28 | 0.0110 | 5.2 | 0.2047 | 38 | 3  | ●     |
| ADRSL-SV-0029 | 0.29 | 0.0114 | 5.2 | 0.2047 | 38 | 3  | ●     |
| ADRSL-SV-0030 | 0.30 | 0.0118 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-SV-0031 | 0.31 | 0.0122 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-SV-0032 | 0.32 | 0.0126 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-SV-0033 | 0.33 | 0.0130 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-SV-0034 | 0.34 | 0.0134 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-SV-0035 | 0.35 | 0.0138 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-SV-0036 | 0.36 | 0.0142 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-SV-0037 | 0.37 | 0.0146 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-SV-0038 | 0.38 | 0.0150 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-SV-0039 | 0.39 | 0.0154 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRSL-SV-0040 | 0.40 | 0.0157 | 9   | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0041 | 0.41 | 0.0161 | 9   | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0042 | 0.42 | 0.0165 | 9   | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0043 | 0.43 | 0.0169 | 9   | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0044 | 0.44 | 0.0173 | 9   | 0.3543 | 38 | 3  | ●     |

| Product No.   | ØD   |        | ℓ  |        | L  | d  | Stock |
|---------------|------|--------|----|--------|----|----|-------|
|               | mm   | inch   | mm | inch   | mm | mm |       |
| ADRSL-SV-0045 | 0.45 | 0.0177 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0046 | 0.46 | 0.0181 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0047 | 0.47 | 0.0185 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0048 | 0.48 | 0.0189 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0049 | 0.49 | 0.0193 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0050 | 0.50 | 0.0197 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0051 | 0.51 | 0.0201 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0052 | 0.52 | 0.0205 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0053 | 0.53 | 0.0209 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0054 | 0.54 | 0.0213 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0055 | 0.55 | 0.0217 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0056 | 0.56 | 0.0220 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0057 | 0.57 | 0.0224 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0058 | 0.58 | 0.0228 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0059 | 0.59 | 0.0232 | 9  | 0.3543 | 38 | 3  | ●     |
| ADRSL-SV-0060 | 0.60 | 0.0236 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0061 | 0.61 | 0.0240 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0062 | 0.62 | 0.0244 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0063 | 0.63 | 0.0248 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0064 | 0.64 | 0.0252 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0065 | 0.65 | 0.0256 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0066 | 0.66 | 0.0260 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0067 | 0.67 | 0.0264 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0068 | 0.68 | 0.0268 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0069 | 0.69 | 0.0272 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0070 | 0.70 | 0.0276 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0071 | 0.71 | 0.0280 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0072 | 0.72 | 0.0283 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0073 | 0.73 | 0.0287 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0074 | 0.74 | 0.0291 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0075 | 0.75 | 0.0295 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0076 | 0.76 | 0.0299 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0077 | 0.77 | 0.0303 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0078 | 0.78 | 0.0307 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0079 | 0.79 | 0.0311 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0080 | 0.80 | 0.0315 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0081 | 0.81 | 0.0319 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0082 | 0.82 | 0.0323 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0083 | 0.83 | 0.0327 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0084 | 0.84 | 0.0331 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0085 | 0.85 | 0.0335 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0086 | 0.86 | 0.0339 | 11 | 0.4331 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ☉             | ☉            | ○           | ☉                | ☉         |                 |               | ○             | ☉               | ☉               |          |

☉ Best ○ Good △ OK

| Product No.   | ØD   |        | ℓ  |        | L  | d  | Stock |
|---------------|------|--------|----|--------|----|----|-------|
|               | mm   | inch   | mm | inch   | mm | mm |       |
| ADRSL-SV-0087 | 0.87 | 0.0343 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0088 | 0.88 | 0.0346 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0089 | 0.89 | 0.0350 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0090 | 0.90 | 0.0354 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0091 | 0.91 | 0.0358 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0092 | 0.92 | 0.0362 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0093 | 0.93 | 0.0366 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0094 | 0.94 | 0.0370 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0095 | 0.95 | 0.0374 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0096 | 0.96 | 0.0378 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0097 | 0.97 | 0.0382 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0098 | 0.98 | 0.0386 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0099 | 0.99 | 0.0390 | 11 | 0.4331 | 38 | 3  | ●     |
| ADRSL-SV-0100 | 1.00 | 0.0394 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRSL-SV-0105 | 1.05 | 0.0413 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRSL-SV-0110 | 1.10 | 0.0433 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRSL-SV-0115 | 1.15 | 0.0453 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRSL-SV-0120 | 1.20 | 0.0472 | 15 | 0.5906 | 45 | 3  | ●     |

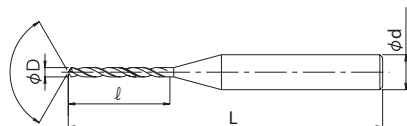
● US Stock Item ○ Japan Stock Item

| Product No.   | ØD   |        | ℓ  |        | L  | d  | Stock |
|---------------|------|--------|----|--------|----|----|-------|
|               | mm   | inch   | mm | inch   | mm | mm |       |
| ADRSL-SV-0125 | 1.25 | 0.0492 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRSL-SV-0130 | 1.30 | 0.0512 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-SV-0135 | 1.35 | 0.0531 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-SV-0140 | 1.40 | 0.0551 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-SV-0145 | 1.45 | 0.0571 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-SV-0150 | 1.50 | 0.0591 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-SV-0155 | 1.55 | 0.0610 | 18 | 0.7087 | 45 | 3  | ●     |
| ADRSL-SV-0160 | 1.60 | 0.0630 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-SV-0165 | 1.65 | 0.0650 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-SV-0170 | 1.70 | 0.0669 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-SV-0175 | 1.75 | 0.0689 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-SV-0180 | 1.80 | 0.0709 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-SV-0185 | 1.85 | 0.0728 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-SV-0190 | 1.90 | 0.0748 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-SV-0195 | 1.95 | 0.0768 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-SV-0200 | 2.00 | 0.0787 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-SV-0250 | 2.50 | 0.0984 | 27 | 1.0630 | 60 | 3  | ●     |
| ADRSL-SV-0300 | 3.00 | 0.1181 | 33 | 1.2992 | 60 | 3  | ●     |



# ADRL-SV

LONG, FCS COATED, FOR STEELS



For drills 0.09 mm diameter and smaller, there is an intermediate neck diameter.

ØD Tolerance:  
+0/-0.005 mm

| Product No.  | ØD   |        | ℓ   |        | L  | d  | Stock |
|--------------|------|--------|-----|--------|----|----|-------|
|              | mm   | inch   | mm  | inch   | mm | mm |       |
| ADRL-SV-0003 | 0.03 | 0.0012 | 0.6 | 0.0236 | 38 | 3  | ●     |
| ADRL-SV-0004 | 0.04 | 0.0016 | 0.8 | 0.0315 | 38 | 3  | ●     |
| ADRL-SV-0005 | 0.05 | 0.0020 | 1.1 | 0.0433 | 38 | 3  | ●     |
| ADRL-SV-0006 | 0.06 | 0.0024 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADRL-SV-0007 | 0.07 | 0.0028 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADRL-SV-0008 | 0.08 | 0.0031 | 1.6 | 0.0630 | 38 | 3  | ●     |
| ADRL-SV-0009 | 0.09 | 0.0035 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADRL-SV-0010 | 0.10 | 0.0039 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRL-SV-0011 | 0.11 | 0.0043 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADRL-SV-0012 | 0.12 | 0.0047 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-SV-0013 | 0.13 | 0.0051 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-SV-0014 | 0.14 | 0.0055 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-SV-0015 | 0.15 | 0.0059 | 4   | 0.1575 | 38 | 3  | ●     |
| ADRL-SV-0016 | 0.16 | 0.0063 | 4   | 0.1575 | 38 | 3  | ●     |
| ADRL-SV-0017 | 0.17 | 0.0067 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-SV-0018 | 0.18 | 0.0071 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-SV-0019 | 0.19 | 0.0075 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-SV-0020 | 0.20 | 0.0079 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-SV-0021 | 0.21 | 0.0083 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-SV-0022 | 0.22 | 0.0087 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-SV-0023 | 0.23 | 0.0091 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-SV-0024 | 0.24 | 0.0094 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-SV-0025 | 0.25 | 0.0098 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-SV-0026 | 0.26 | 0.0102 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-SV-0027 | 0.27 | 0.0106 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-SV-0028 | 0.28 | 0.0110 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-SV-0029 | 0.29 | 0.0114 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-SV-0030 | 0.30 | 0.0118 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-SV-0031 | 0.31 | 0.0122 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-SV-0032 | 0.32 | 0.0126 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-SV-0033 | 0.33 | 0.0130 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-SV-0034 | 0.34 | 0.0134 | 9   | 0.3543 | 45 | 3  | ●     |
| ADRL-SV-0035 | 0.35 | 0.0138 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-SV-0036 | 0.36 | 0.0142 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-SV-0037 | 0.37 | 0.0146 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-SV-0038 | 0.38 | 0.0150 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-SV-0039 | 0.39 | 0.0154 | 10  | 0.3937 | 45 | 3  | ●     |
| ADRL-SV-0040 | 0.40 | 0.0157 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0041 | 0.41 | 0.0161 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0042 | 0.42 | 0.0165 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0043 | 0.43 | 0.0169 | 12  | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0044 | 0.44 | 0.0173 | 12  | 0.4724 | 45 | 3  | ●     |

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SV-0045 | 0.45 | 0.0177 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0046 | 0.46 | 0.0181 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0047 | 0.47 | 0.0185 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0048 | 0.48 | 0.0189 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0049 | 0.49 | 0.0193 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0050 | 0.50 | 0.0197 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0051 | 0.51 | 0.0201 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0052 | 0.52 | 0.0205 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0053 | 0.53 | 0.0209 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0054 | 0.54 | 0.0213 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0055 | 0.55 | 0.0217 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0056 | 0.56 | 0.0220 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0057 | 0.57 | 0.0224 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0058 | 0.58 | 0.0228 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0059 | 0.59 | 0.0232 | 12 | 0.4724 | 45 | 3  | ●     |
| ADRL-SV-0060 | 0.60 | 0.0236 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0061 | 0.61 | 0.0240 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0062 | 0.62 | 0.0244 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0063 | 0.63 | 0.0248 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0064 | 0.64 | 0.0252 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0065 | 0.65 | 0.0256 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0066 | 0.66 | 0.0260 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0067 | 0.67 | 0.0264 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0068 | 0.68 | 0.0268 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0069 | 0.69 | 0.0272 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0070 | 0.70 | 0.0276 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0071 | 0.71 | 0.0280 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0072 | 0.72 | 0.0283 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0073 | 0.73 | 0.0287 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0074 | 0.74 | 0.0291 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0075 | 0.75 | 0.0295 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0076 | 0.76 | 0.0299 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0077 | 0.77 | 0.0303 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0078 | 0.78 | 0.0307 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0079 | 0.79 | 0.0311 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0080 | 0.80 | 0.0315 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0081 | 0.81 | 0.0319 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0082 | 0.82 | 0.0323 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0083 | 0.83 | 0.0327 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0084 | 0.84 | 0.0331 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0085 | 0.85 | 0.0335 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0086 | 0.86 | 0.0339 | 15 | 0.5906 | 45 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ◎             | ◎            | ○           | ◎                | ◎         |                 |               | ○             | ◎               | ◎               |          |

◎ Best ○ Good △ OK

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SV-0087 | 0.87 | 0.0343 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0088 | 0.88 | 0.0346 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0089 | 0.89 | 0.0350 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0090 | 0.90 | 0.0354 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0091 | 0.91 | 0.0358 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0092 | 0.92 | 0.0362 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0093 | 0.93 | 0.0366 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0094 | 0.94 | 0.0370 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0095 | 0.95 | 0.0374 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0096 | 0.96 | 0.0378 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0097 | 0.97 | 0.0382 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0098 | 0.98 | 0.0386 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0099 | 0.99 | 0.0390 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SV-0100 | 1.00 | 0.0394 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0101 | 1.01 | 0.0398 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0102 | 1.02 | 0.0402 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0103 | 1.03 | 0.0406 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0104 | 1.04 | 0.0409 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0105 | 1.05 | 0.0413 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0106 | 1.06 | 0.0417 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0107 | 1.07 | 0.0421 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0108 | 1.08 | 0.0425 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0109 | 1.09 | 0.0429 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0110 | 1.10 | 0.0433 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0111 | 1.11 | 0.0437 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0112 | 1.12 | 0.0441 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0113 | 1.13 | 0.0445 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0114 | 1.14 | 0.0449 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0115 | 1.15 | 0.0453 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0116 | 1.16 | 0.0457 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0117 | 1.17 | 0.0461 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0118 | 1.18 | 0.0465 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0119 | 1.19 | 0.0469 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0120 | 1.20 | 0.0472 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0121 | 1.21 | 0.0476 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0122 | 1.22 | 0.0480 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0123 | 1.23 | 0.0484 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0124 | 1.24 | 0.0488 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0125 | 1.25 | 0.0492 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0126 | 1.26 | 0.0496 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0127 | 1.27 | 0.0500 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0128 | 1.28 | 0.0504 | 20 | 0.7874 | 50 | 3  | ●     |

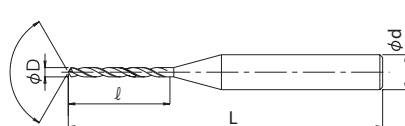
● US Stock Item ○ Japan Stock Item

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SV-0129 | 1.29 | 0.0508 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SV-0130 | 1.30 | 0.0512 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0131 | 1.31 | 0.0516 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0132 | 1.32 | 0.0520 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0133 | 1.33 | 0.0524 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0134 | 1.34 | 0.0528 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0135 | 1.35 | 0.0531 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0136 | 1.36 | 0.0535 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0137 | 1.37 | 0.0539 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0138 | 1.38 | 0.0543 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0139 | 1.39 | 0.0547 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0140 | 1.40 | 0.0551 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0141 | 1.41 | 0.0555 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0142 | 1.42 | 0.0559 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0143 | 1.43 | 0.0563 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0144 | 1.44 | 0.0567 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0145 | 1.45 | 0.0571 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0146 | 1.46 | 0.0575 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0147 | 1.47 | 0.0579 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0148 | 1.48 | 0.0583 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0149 | 1.49 | 0.0587 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0150 | 1.50 | 0.0591 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0151 | 1.51 | 0.0594 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0152 | 1.52 | 0.0598 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0153 | 1.53 | 0.0602 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0154 | 1.54 | 0.0606 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0155 | 1.55 | 0.0610 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0156 | 1.56 | 0.0614 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0157 | 1.57 | 0.0618 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0158 | 1.58 | 0.0622 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0159 | 1.59 | 0.0626 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SV-0160 | 1.60 | 0.0630 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0161 | 1.61 | 0.0634 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0162 | 1.62 | 0.0638 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0163 | 1.63 | 0.0642 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0164 | 1.64 | 0.0646 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0165 | 1.65 | 0.0650 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0166 | 1.66 | 0.0654 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0167 | 1.67 | 0.0657 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0168 | 1.68 | 0.0661 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0169 | 1.69 | 0.0665 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0170 | 1.70 | 0.0669 | 32 | 1.2598 | 60 | 3  | ●     |

Next Page ▶

# ADRL-SV (Cont.)

LONG, FCS COATED, FOR STEELS



For drills 0.09 mm diameter and smaller, there is an intermediate neck diameter.

ØD Tolerance:  
+0/-0.005 mm

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SV-0171 | 1.71 | 0.0673 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0172 | 1.72 | 0.0677 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0173 | 1.73 | 0.0681 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0174 | 1.74 | 0.0685 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0175 | 1.75 | 0.0689 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0176 | 1.76 | 0.0693 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0177 | 1.77 | 0.0697 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0178 | 1.78 | 0.0701 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0179 | 1.79 | 0.0705 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0180 | 1.80 | 0.0709 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0181 | 1.81 | 0.0713 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0182 | 1.82 | 0.0717 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0183 | 1.83 | 0.0720 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0184 | 1.84 | 0.0724 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0185 | 1.85 | 0.0728 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0186 | 1.86 | 0.0732 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0187 | 1.87 | 0.0736 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0188 | 1.88 | 0.0740 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0189 | 1.89 | 0.0744 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0190 | 1.90 | 0.0748 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0191 | 1.91 | 0.0752 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0192 | 1.92 | 0.0756 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0193 | 1.93 | 0.0760 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0194 | 1.94 | 0.0764 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0195 | 1.95 | 0.0768 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0196 | 1.96 | 0.0772 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0197 | 1.97 | 0.0776 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0198 | 1.98 | 0.0780 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0199 | 1.99 | 0.0783 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0200 | 2.00 | 0.0787 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0201 | 2.01 | 0.0791 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0202 | 2.02 | 0.0795 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0203 | 2.03 | 0.0799 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0204 | 2.04 | 0.0803 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0205 | 2.05 | 0.0807 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0206 | 2.06 | 0.0811 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0207 | 2.07 | 0.0815 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0208 | 2.08 | 0.0819 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0209 | 2.09 | 0.0823 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0210 | 2.10 | 0.0827 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0211 | 2.11 | 0.0831 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0212 | 2.12 | 0.0835 | 32 | 1.2598 | 60 | 3  | ●     |

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SV-0213 | 2.13 | 0.0839 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0214 | 2.14 | 0.0843 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0215 | 2.15 | 0.0846 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0216 | 2.16 | 0.0850 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0217 | 2.17 | 0.0854 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0218 | 2.18 | 0.0858 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0219 | 2.19 | 0.0862 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0220 | 2.20 | 0.0866 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0221 | 2.21 | 0.0870 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0222 | 2.22 | 0.0874 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0223 | 2.23 | 0.0878 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0224 | 2.24 | 0.0882 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0225 | 2.25 | 0.0886 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0226 | 2.26 | 0.0890 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0227 | 2.27 | 0.0894 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0228 | 2.28 | 0.0898 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0229 | 2.29 | 0.0902 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0230 | 2.30 | 0.0906 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0231 | 2.31 | 0.0909 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0232 | 2.32 | 0.0913 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0233 | 2.33 | 0.0917 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0234 | 2.34 | 0.0921 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0235 | 2.35 | 0.0925 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0236 | 2.36 | 0.0929 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0237 | 2.37 | 0.0933 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0238 | 2.38 | 0.0937 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0239 | 2.39 | 0.0941 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0240 | 2.40 | 0.0945 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0241 | 2.41 | 0.0949 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0242 | 2.42 | 0.0953 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0243 | 2.43 | 0.0957 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0244 | 2.44 | 0.0961 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0245 | 2.45 | 0.0965 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0246 | 2.46 | 0.0969 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0247 | 2.47 | 0.0972 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0248 | 2.48 | 0.0976 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0249 | 2.49 | 0.0980 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0250 | 2.50 | 0.0984 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0251 | 2.51 | 0.0988 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0252 | 2.52 | 0.0992 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0253 | 2.53 | 0.0996 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0254 | 2.54 | 0.1000 | 32 | 1.2598 | 60 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ☉             | ☉            | ○           | ☉                | ☉         |                 |               | ○             | ☉               | ☉               |          |

☉ Best ○ Good △ OK

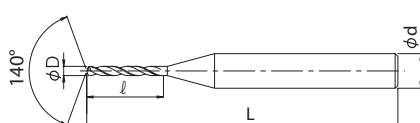
| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SV-0255 | 2.55 | 0.1004 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0256 | 2.56 | 0.1008 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0257 | 2.57 | 0.1012 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0258 | 2.58 | 0.1016 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0259 | 2.59 | 0.1020 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0260 | 2.60 | 0.1024 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0261 | 2.61 | 0.1028 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0262 | 2.62 | 0.1031 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0263 | 2.63 | 0.1035 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0264 | 2.64 | 0.1039 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0265 | 2.65 | 0.1043 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0266 | 2.66 | 0.1047 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0267 | 2.67 | 0.1051 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0268 | 2.68 | 0.1055 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0269 | 2.69 | 0.1059 | 32 | 1.2598 | 60 | 3  | ●     |
| ADRL-SV-0270 | 2.70 | 0.1063 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0271 | 2.71 | 0.1067 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0272 | 2.72 | 0.1071 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0273 | 2.73 | 0.1075 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0274 | 2.74 | 0.1079 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0275 | 2.75 | 0.1083 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0276 | 2.76 | 0.1087 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0277 | 2.77 | 0.1091 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0278 | 2.78 | 0.1094 | 40 | 1.5748 | 65 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SV-0279 | 2.79 | 0.1098 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0280 | 2.80 | 0.1102 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0281 | 2.81 | 0.1106 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0282 | 2.82 | 0.1110 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0283 | 2.83 | 0.1114 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0284 | 2.84 | 0.1118 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0285 | 2.85 | 0.1122 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0286 | 2.86 | 0.1126 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0287 | 2.87 | 0.1130 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0288 | 2.88 | 0.1134 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0289 | 2.89 | 0.1138 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0290 | 2.90 | 0.1142 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0291 | 2.91 | 0.1146 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0292 | 2.92 | 0.1150 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0293 | 2.93 | 0.1154 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0294 | 2.94 | 0.1157 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0295 | 2.95 | 0.1161 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0296 | 2.96 | 0.1165 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0297 | 2.97 | 0.1169 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0298 | 2.98 | 0.1173 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0299 | 2.99 | 0.1177 | 40 | 1.5748 | 65 | 3  | ●     |
| ADRL-SV-0300 | 3.00 | 0.1181 | 40 | 1.5748 | 65 | 3  | ●     |

## ADR-SUS

REGULAR, FCS COATED, FOR HARD-TO-CUT MATERIALS



ØD Tolerance:  
+0/-0.01 mm

| Product No.  | ØD   |        | ℓ   |        | L  | d  | Stock |
|--------------|------|--------|-----|--------|----|----|-------|
|              | mm   | inch   | mm  | inch   | mm | mm |       |
| ADR-SUS-0010 | 0.10 | 0.0039 | 1   | 0.0394 | 38 | 3  | ●     |
| ADR-SUS-0011 | 0.11 | 0.0043 | 1.1 | 0.0433 | 38 | 3  | ●     |
| ADR-SUS-0012 | 0.12 | 0.0047 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADR-SUS-0013 | 0.13 | 0.0051 | 1.3 | 0.0512 | 38 | 3  | ●     |
| ADR-SUS-0014 | 0.14 | 0.0055 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ADR-SUS-0015 | 0.15 | 0.0059 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADR-SUS-0016 | 0.16 | 0.0063 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADR-SUS-0017 | 0.17 | 0.0067 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADR-SUS-0018 | 0.18 | 0.0071 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-SUS-0019 | 0.19 | 0.0075 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADR-SUS-0020 | 0.20 | 0.0079 | 2   | 0.0787 | 38 | 3  | ●     |
| ADR-SUS-0021 | 0.21 | 0.0083 | 2   | 0.0787 | 38 | 3  | ●     |
| ADR-SUS-0022 | 0.22 | 0.0087 | 2   | 0.0787 | 38 | 3  | ●     |
| ADR-SUS-0023 | 0.23 | 0.0091 | 2.3 | 0.0906 | 38 | 3  | ●     |
| ADR-SUS-0024 | 0.24 | 0.0094 | 2.3 | 0.0906 | 38 | 3  | ●     |
| ADR-SUS-0025 | 0.25 | 0.0098 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADR-SUS-0026 | 0.26 | 0.0102 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADR-SUS-0027 | 0.27 | 0.0106 | 2.5 | 0.0984 | 38 | 3  | ●     |
| ADR-SUS-0028 | 0.28 | 0.0110 | 2.8 | 0.1102 | 38 | 3  | ●     |
| ADR-SUS-0029 | 0.29 | 0.0114 | 2.8 | 0.1102 | 38 | 3  | ●     |
| ADR-SUS-0030 | 0.30 | 0.0118 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-SUS-0031 | 0.31 | 0.0122 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-SUS-0032 | 0.32 | 0.0126 | 3   | 0.1181 | 38 | 3  | ●     |
| ADR-SUS-0033 | 0.33 | 0.0130 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADR-SUS-0034 | 0.34 | 0.0134 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ADR-SUS-0035 | 0.35 | 0.0138 | 3.5 | 0.1378 | 38 | 3  | ●     |
| ADR-SUS-0036 | 0.36 | 0.0142 | 3.5 | 0.1378 | 38 | 3  | ●     |
| ADR-SUS-0037 | 0.37 | 0.0146 | 3.5 | 0.1378 | 38 | 3  | ●     |
| ADR-SUS-0038 | 0.38 | 0.0150 | 3.8 | 0.1496 | 38 | 3  | ●     |
| ADR-SUS-0039 | 0.39 | 0.0154 | 3.8 | 0.1496 | 38 | 3  | ●     |
| ADR-SUS-0040 | 0.40 | 0.0157 | 4   | 0.1575 | 38 | 3  | ●     |
| ADR-SUS-0041 | 0.41 | 0.0161 | 4   | 0.1575 | 38 | 3  | ●     |
| ADR-SUS-0042 | 0.42 | 0.0165 | 4   | 0.1575 | 38 | 3  | ●     |
| ADR-SUS-0043 | 0.43 | 0.0169 | 4   | 0.1575 | 38 | 3  | ●     |
| ADR-SUS-0044 | 0.44 | 0.0173 | 4   | 0.1575 | 38 | 3  | ●     |
| ADR-SUS-0045 | 0.45 | 0.0177 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADR-SUS-0046 | 0.46 | 0.0181 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADR-SUS-0047 | 0.47 | 0.0185 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADR-SUS-0048 | 0.48 | 0.0189 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADR-SUS-0049 | 0.49 | 0.0193 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADR-SUS-0050 | 0.50 | 0.0197 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SUS-0051 | 0.51 | 0.0201 | 5   | 0.1969 | 38 | 3  | ●     |

| Product No.  | ØD   |        | ℓ   |        | L  | d  | Stock |
|--------------|------|--------|-----|--------|----|----|-------|
|              | mm   | inch   | mm  | inch   | mm | mm |       |
| ADR-SUS-0052 | 0.52 | 0.0205 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SUS-0053 | 0.53 | 0.0209 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SUS-0054 | 0.54 | 0.0213 | 5   | 0.1969 | 38 | 3  | ●     |
| ADR-SUS-0055 | 0.55 | 0.0217 | 5.5 | 0.2165 | 38 | 3  | ●     |
| ADR-SUS-0056 | 0.56 | 0.0220 | 5.5 | 0.2165 | 38 | 3  | ●     |
| ADR-SUS-0057 | 0.57 | 0.0224 | 5.5 | 0.2165 | 38 | 3  | ●     |
| ADR-SUS-0058 | 0.58 | 0.0228 | 5.5 | 0.2165 | 38 | 3  | ●     |
| ADR-SUS-0059 | 0.59 | 0.0232 | 5.5 | 0.2165 | 38 | 3  | ●     |
| ADR-SUS-0060 | 0.60 | 0.0236 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-SUS-0061 | 0.61 | 0.0240 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-SUS-0062 | 0.62 | 0.0244 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-SUS-0063 | 0.63 | 0.0248 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-SUS-0064 | 0.64 | 0.0252 | 6   | 0.2362 | 38 | 3  | ●     |
| ADR-SUS-0065 | 0.65 | 0.0256 | 6.5 | 0.2559 | 38 | 3  | ●     |
| ADR-SUS-0066 | 0.66 | 0.0260 | 6.5 | 0.2559 | 38 | 3  | ●     |
| ADR-SUS-0067 | 0.67 | 0.0264 | 6.5 | 0.2559 | 38 | 3  | ●     |
| ADR-SUS-0068 | 0.68 | 0.0268 | 6.5 | 0.2559 | 38 | 3  | ●     |
| ADR-SUS-0069 | 0.69 | 0.0272 | 6.5 | 0.2559 | 38 | 3  | ●     |
| ADR-SUS-0070 | 0.70 | 0.0276 | 7   | 0.2756 | 38 | 3  | ●     |
| ADR-SUS-0071 | 0.71 | 0.0280 | 7   | 0.2756 | 38 | 3  | ●     |
| ADR-SUS-0072 | 0.72 | 0.0283 | 7   | 0.2756 | 38 | 3  | ●     |
| ADR-SUS-0073 | 0.73 | 0.0287 | 7   | 0.2756 | 38 | 3  | ●     |
| ADR-SUS-0074 | 0.74 | 0.0291 | 7   | 0.2756 | 38 | 3  | ●     |
| ADR-SUS-0075 | 0.75 | 0.0295 | 7.5 | 0.2953 | 38 | 3  | ●     |
| ADR-SUS-0076 | 0.76 | 0.0299 | 7.5 | 0.2953 | 38 | 3  | ●     |
| ADR-SUS-0077 | 0.77 | 0.0303 | 7.5 | 0.2953 | 38 | 3  | ●     |
| ADR-SUS-0078 | 0.78 | 0.0307 | 7.5 | 0.2953 | 38 | 3  | ●     |
| ADR-SUS-0079 | 0.79 | 0.0311 | 7.5 | 0.2953 | 38 | 3  | ●     |
| ADR-SUS-0080 | 0.80 | 0.0315 | 8   | 0.3150 | 38 | 3  | ●     |
| ADR-SUS-0081 | 0.81 | 0.0319 | 8   | 0.3150 | 38 | 3  | ●     |
| ADR-SUS-0082 | 0.82 | 0.0323 | 8   | 0.3150 | 38 | 3  | ●     |
| ADR-SUS-0083 | 0.83 | 0.0327 | 8   | 0.3150 | 38 | 3  | ●     |
| ADR-SUS-0084 | 0.84 | 0.0331 | 8   | 0.3150 | 38 | 3  | ●     |
| ADR-SUS-0085 | 0.85 | 0.0335 | 8   | 0.3150 | 38 | 3  | ●     |
| ADR-SUS-0086 | 0.86 | 0.0339 | 8   | 0.3150 | 38 | 3  | ●     |
| ADR-SUS-0087 | 0.87 | 0.0343 | 8   | 0.3150 | 38 | 3  | ●     |
| ADR-SUS-0088 | 0.88 | 0.0346 | 8   | 0.3150 | 38 | 3  | ●     |
| ADR-SUS-0089 | 0.89 | 0.0350 | 8   | 0.3150 | 38 | 3  | ●     |
| ADR-SUS-0090 | 0.90 | 0.0354 | 9   | 0.3543 | 38 | 3  | ●     |
| ADR-SUS-0091 | 0.91 | 0.0358 | 9   | 0.3543 | 38 | 3  | ●     |
| ADR-SUS-0092 | 0.92 | 0.0362 | 9   | 0.3543 | 38 | 3  | ●     |
| ADR-SUS-0093 | 0.93 | 0.0366 | 9   | 0.3543 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ○             | ○            | ◎           | ○                | ○         |                 |               | △             | ○               | ◎               |          |

◎ Best ○ Good △ OK

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SUS-0094 | 0.94 | 0.0370 | 9  | 0.3543 | 38 | 3  | ●     |
| ADR-SUS-0095 | 0.95 | 0.0374 | 9  | 0.3543 | 38 | 3  | ●     |
| ADR-SUS-0096 | 0.96 | 0.0378 | 9  | 0.3543 | 38 | 3  | ●     |
| ADR-SUS-0097 | 0.97 | 0.0382 | 9  | 0.3543 | 38 | 3  | ●     |
| ADR-SUS-0098 | 0.98 | 0.0386 | 9  | 0.3543 | 38 | 3  | ●     |
| ADR-SUS-0099 | 0.99 | 0.0390 | 9  | 0.3543 | 38 | 3  | ●     |
| ADR-SUS-0100 | 1.00 | 0.0394 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0101 | 1.01 | 0.0398 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0102 | 1.02 | 0.0402 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0103 | 1.03 | 0.0406 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0104 | 1.04 | 0.0409 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0105 | 1.05 | 0.0413 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0106 | 1.06 | 0.0417 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0107 | 1.07 | 0.0421 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0108 | 1.08 | 0.0425 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0109 | 1.09 | 0.0429 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0110 | 1.10 | 0.0433 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0111 | 1.11 | 0.0437 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0112 | 1.12 | 0.0441 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0113 | 1.13 | 0.0445 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0114 | 1.14 | 0.0449 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0115 | 1.15 | 0.0453 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0116 | 1.16 | 0.0457 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0117 | 1.17 | 0.0461 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0118 | 1.18 | 0.0465 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0119 | 1.19 | 0.0469 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0120 | 1.20 | 0.0472 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0121 | 1.21 | 0.0476 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0122 | 1.22 | 0.0480 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0123 | 1.23 | 0.0484 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0124 | 1.24 | 0.0488 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0125 | 1.25 | 0.0492 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0126 | 1.26 | 0.0496 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0127 | 1.27 | 0.0500 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0128 | 1.28 | 0.0504 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0129 | 1.29 | 0.0508 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0130 | 1.30 | 0.0512 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0131 | 1.31 | 0.0516 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0132 | 1.32 | 0.0520 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0133 | 1.33 | 0.0524 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0134 | 1.34 | 0.0528 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0135 | 1.35 | 0.0531 | 10 | 0.3937 | 38 | 3  | ●     |

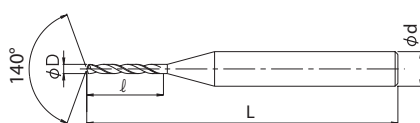
| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SUS-0136 | 1.36 | 0.0535 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0137 | 1.37 | 0.0539 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0138 | 1.38 | 0.0543 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0139 | 1.39 | 0.0547 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0140 | 1.40 | 0.0551 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0141 | 1.41 | 0.0555 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0142 | 1.42 | 0.0559 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0143 | 1.43 | 0.0563 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0144 | 1.44 | 0.0567 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0145 | 1.45 | 0.0571 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0146 | 1.46 | 0.0575 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0147 | 1.47 | 0.0579 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0148 | 1.48 | 0.0583 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0149 | 1.49 | 0.0587 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0150 | 1.50 | 0.0591 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0151 | 1.51 | 0.0594 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0152 | 1.52 | 0.0598 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0153 | 1.53 | 0.0602 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0154 | 1.54 | 0.0606 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0155 | 1.55 | 0.0610 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0156 | 1.56 | 0.0614 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0157 | 1.57 | 0.0618 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0158 | 1.58 | 0.0622 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0159 | 1.59 | 0.0626 | 10 | 0.3937 | 38 | 3  | ●     |
| ADR-SUS-0160 | 1.60 | 0.0630 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0161 | 1.61 | 0.0634 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0162 | 1.62 | 0.0638 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0163 | 1.63 | 0.0642 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0164 | 1.64 | 0.0646 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0165 | 1.65 | 0.0650 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0166 | 1.66 | 0.0654 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0167 | 1.67 | 0.0657 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0168 | 1.68 | 0.0661 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0169 | 1.69 | 0.0665 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0170 | 1.70 | 0.0669 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0171 | 1.71 | 0.0673 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0172 | 1.72 | 0.0677 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0173 | 1.73 | 0.0681 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0174 | 1.74 | 0.0685 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0175 | 1.75 | 0.0689 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0176 | 1.76 | 0.0693 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0177 | 1.77 | 0.0697 | 12 | 0.4724 | 45 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

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# ADR-SUS (Cont.)

REGULAR, FCS COATED, FOR HARD-TO-CUT MATERIALS



ØD Tolerance:  
+0/-0.01 mm

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SUS-0178 | 1.78 | 0.0701 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0179 | 1.79 | 0.0705 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0180 | 1.80 | 0.0709 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0181 | 1.81 | 0.0713 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0182 | 1.82 | 0.0717 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0183 | 1.83 | 0.0720 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0184 | 1.84 | 0.0724 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0185 | 1.85 | 0.0728 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0186 | 1.86 | 0.0732 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0187 | 1.87 | 0.0736 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0188 | 1.88 | 0.0740 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0189 | 1.89 | 0.0744 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0190 | 1.90 | 0.0748 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0191 | 1.91 | 0.0752 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0192 | 1.92 | 0.0756 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0193 | 1.93 | 0.0760 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0194 | 1.94 | 0.0764 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0195 | 1.95 | 0.0768 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0196 | 1.96 | 0.0772 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0197 | 1.97 | 0.0776 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0198 | 1.98 | 0.0780 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0199 | 1.99 | 0.0783 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0200 | 2.00 | 0.0787 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0201 | 2.01 | 0.0791 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0202 | 2.02 | 0.0795 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0203 | 2.03 | 0.0799 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0204 | 2.04 | 0.0803 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0205 | 2.05 | 0.0807 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0206 | 2.06 | 0.0811 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0207 | 2.07 | 0.0815 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0208 | 2.08 | 0.0819 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0209 | 2.09 | 0.0823 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0210 | 2.10 | 0.0827 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0211 | 2.11 | 0.0831 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0212 | 2.12 | 0.0835 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0213 | 2.13 | 0.0839 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0214 | 2.14 | 0.0843 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0215 | 2.15 | 0.0846 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0216 | 2.16 | 0.0850 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0217 | 2.17 | 0.0854 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0218 | 2.18 | 0.0858 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0219 | 2.19 | 0.0862 | 12 | 0.4724 | 45 | 3  | ●     |

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SUS-0220 | 2.20 | 0.0866 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0221 | 2.21 | 0.0870 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0222 | 2.22 | 0.0874 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0223 | 2.23 | 0.0878 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0224 | 2.24 | 0.0882 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0225 | 2.25 | 0.0886 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0226 | 2.26 | 0.0890 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0227 | 2.27 | 0.0894 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0228 | 2.28 | 0.0898 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0229 | 2.29 | 0.0902 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0230 | 2.30 | 0.0906 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0231 | 2.31 | 0.0909 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0232 | 2.32 | 0.0913 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0233 | 2.33 | 0.0917 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0234 | 2.34 | 0.0921 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0235 | 2.35 | 0.0925 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0236 | 2.36 | 0.0929 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0237 | 2.37 | 0.0933 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0238 | 2.38 | 0.0937 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0239 | 2.39 | 0.0941 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0240 | 2.40 | 0.0945 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0241 | 2.41 | 0.0949 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0242 | 2.42 | 0.0953 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0243 | 2.43 | 0.0957 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0244 | 2.44 | 0.0961 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0245 | 2.45 | 0.0965 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0246 | 2.46 | 0.0969 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0247 | 2.47 | 0.0972 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0248 | 2.48 | 0.0976 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0249 | 2.49 | 0.0980 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0250 | 2.50 | 0.0984 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0251 | 2.51 | 0.0988 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0252 | 2.52 | 0.0992 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0253 | 2.53 | 0.0996 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0254 | 2.54 | 0.1000 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0255 | 2.55 | 0.1004 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0256 | 2.56 | 0.1008 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0257 | 2.57 | 0.1012 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0258 | 2.58 | 0.1016 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0259 | 2.59 | 0.1020 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0260 | 2.60 | 0.1024 | 12 | 0.4724 | 45 | 3  | ●     |
| ADR-SUS-0261 | 2.61 | 0.1028 | 12 | 0.4724 | 45 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ○             | ○            | ◎           | ○                | ○         |                 |               | △             | ○               | ◎               |          |

◎ Best ○ Good △ OK

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SUS-0262 | 2.62 | 0.1031 | 12 | 0.4724 | 45 | 3  | 54.60 |
| ADR-SUS-0263 | 2.63 | 0.1035 | 12 | 0.4724 | 45 | 3  | 54.60 |
| ADR-SUS-0264 | 2.64 | 0.1039 | 12 | 0.4724 | 45 | 3  | 54.60 |
| ADR-SUS-0265 | 2.65 | 0.1043 | 12 | 0.4724 | 45 | 3  | 54.60 |
| ADR-SUS-0266 | 2.66 | 0.1047 | 12 | 0.4724 | 45 | 3  | 54.60 |
| ADR-SUS-0267 | 2.67 | 0.1051 | 12 | 0.4724 | 45 | 3  | 54.60 |
| ADR-SUS-0268 | 2.68 | 0.1055 | 12 | 0.4724 | 45 | 3  | 54.60 |
| ADR-SUS-0269 | 2.69 | 0.1059 | 12 | 0.4724 | 45 | 3  | 54.60 |
| ADR-SUS-0270 | 2.70 | 0.1063 | 15 | 0.5906 | 45 | 3  | 50.80 |
| ADR-SUS-0271 | 2.71 | 0.1067 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0272 | 2.72 | 0.1071 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0273 | 2.73 | 0.1075 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0274 | 2.74 | 0.1079 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0275 | 2.75 | 0.1083 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0276 | 2.76 | 0.1087 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0277 | 2.77 | 0.1091 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0278 | 2.78 | 0.1094 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0279 | 2.79 | 0.1098 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0280 | 2.80 | 0.1102 | 15 | 0.5906 | 45 | 3  | 50.80 |
| ADR-SUS-0281 | 2.81 | 0.1106 | 15 | 0.5906 | 45 | 3  | 54.60 |

● US Stock Item ○ Japan Stock Item

| Product No.  | ØD   |        | ℓ  |        | L  | d  | Stock |
|--------------|------|--------|----|--------|----|----|-------|
|              | mm   | inch   | mm | inch   | mm | mm |       |
| ADR-SUS-0282 | 2.82 | 0.1110 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0283 | 2.83 | 0.1114 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0284 | 2.84 | 0.1118 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0285 | 2.85 | 0.1122 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0286 | 2.86 | 0.1126 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0287 | 2.87 | 0.1130 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0288 | 2.88 | 0.1134 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0289 | 2.89 | 0.1138 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0290 | 2.90 | 0.1142 | 15 | 0.5906 | 45 | 3  | 50.80 |
| ADR-SUS-0291 | 2.91 | 0.1146 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0292 | 2.92 | 0.1150 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0293 | 2.93 | 0.1154 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0294 | 2.94 | 0.1157 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0295 | 2.95 | 0.1161 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0296 | 2.96 | 0.1165 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0297 | 2.97 | 0.1169 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0298 | 2.98 | 0.1173 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0299 | 2.99 | 0.1177 | 15 | 0.5906 | 45 | 3  | 54.60 |
| ADR-SUS-0300 | 3.00 | 0.1181 | 15 | 0.5906 | 45 | 3  | 50.80 |

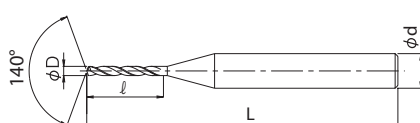


# ADRL-SUS

LONG, FCS COATED, FOR HARD-TO-CUT MATERIALS



≥ Ø0.3 mm



ØD Tolerance:  
+0/-0.01 mm

| Product No.   | ØD   |        | ℓ   |        | L  | d  | Stock |
|---------------|------|--------|-----|--------|----|----|-------|
|               | mm   | inch   | mm  | inch   | mm | mm |       |
| ADRL-SUS-0010 | 0.10 | 0.0039 | 1.5 | 0.0591 | 38 | 3  | ●     |
| ADRL-SUS-0011 | 0.11 | 0.0043 | 1.7 | 0.0669 | 38 | 3  | ●     |
| ADRL-SUS-0012 | 0.12 | 0.0047 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADRL-SUS-0013 | 0.13 | 0.0051 | 2   | 0.0787 | 38 | 3  | ●     |
| ADRL-SUS-0014 | 0.14 | 0.0055 | 2   | 0.0787 | 38 | 3  | ●     |
| ADRL-SUS-0015 | 0.15 | 0.0059 | 2.3 | 0.0906 | 38 | 3  | ●     |
| ADRL-SUS-0016 | 0.16 | 0.0063 | 2.3 | 0.0906 | 38 | 3  | ●     |
| ADRL-SUS-0017 | 0.17 | 0.0067 | 2.3 | 0.0906 | 38 | 3  | ●     |
| ADRL-SUS-0018 | 0.18 | 0.0071 | 2.7 | 0.1063 | 38 | 3  | ●     |
| ADRL-SUS-0019 | 0.19 | 0.0075 | 2.7 | 0.1063 | 38 | 3  | ●     |
| ADRL-SUS-0020 | 0.20 | 0.0079 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-SUS-0021 | 0.21 | 0.0083 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-SUS-0022 | 0.22 | 0.0087 | 3   | 0.1181 | 38 | 3  | ●     |
| ADRL-SUS-0023 | 0.23 | 0.0091 | 3.5 | 0.1378 | 38 | 3  | ●     |
| ADRL-SUS-0024 | 0.24 | 0.0094 | 3.5 | 0.1378 | 38 | 3  | ●     |
| ADRL-SUS-0025 | 0.25 | 0.0098 | 3.8 | 0.1496 | 38 | 3  | ●     |
| ADRL-SUS-0026 | 0.26 | 0.0102 | 3.8 | 0.1496 | 38 | 3  | ●     |
| ADRL-SUS-0027 | 0.27 | 0.0106 | 3.8 | 0.1496 | 38 | 3  | ●     |
| ADRL-SUS-0028 | 0.28 | 0.0110 | 4.2 | 0.1654 | 38 | 3  | ●     |
| ADRL-SUS-0029 | 0.29 | 0.0114 | 4.2 | 0.1654 | 38 | 3  | ●     |
| ADRL-SUS-0030 | 0.30 | 0.0118 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-SUS-0031 | 0.31 | 0.0122 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-SUS-0032 | 0.32 | 0.0126 | 4.5 | 0.1772 | 38 | 3  | ●     |
| ADRL-SUS-0033 | 0.33 | 0.0130 | 5   | 0.1969 | 38 | 3  | ●     |
| ADRL-SUS-0034 | 0.34 | 0.0134 | 5   | 0.1969 | 38 | 3  | ●     |
| ADRL-SUS-0035 | 0.35 | 0.0138 | 5.3 | 0.2087 | 38 | 3  | ●     |
| ADRL-SUS-0036 | 0.36 | 0.0142 | 5.3 | 0.2087 | 38 | 3  | ●     |
| ADRL-SUS-0037 | 0.37 | 0.0146 | 5.3 | 0.2087 | 38 | 3  | ●     |
| ADRL-SUS-0038 | 0.38 | 0.0150 | 5.7 | 0.2244 | 38 | 3  | ●     |
| ADRL-SUS-0039 | 0.39 | 0.0154 | 5.7 | 0.2244 | 38 | 3  | ●     |
| ADRL-SUS-0040 | 0.40 | 0.0157 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-SUS-0041 | 0.41 | 0.0161 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-SUS-0042 | 0.42 | 0.0165 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-SUS-0043 | 0.43 | 0.0169 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-SUS-0044 | 0.44 | 0.0173 | 6   | 0.2362 | 38 | 3  | ●     |
| ADRL-SUS-0045 | 0.45 | 0.0177 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-SUS-0046 | 0.46 | 0.0181 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-SUS-0047 | 0.47 | 0.0185 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-SUS-0048 | 0.48 | 0.0189 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-SUS-0049 | 0.49 | 0.0193 | 7   | 0.2756 | 38 | 3  | ●     |
| ADRL-SUS-0050 | 0.50 | 0.0197 | 7.5 | 0.2953 | 38 | 3  | ●     |
| ADRL-SUS-0051 | 0.51 | 0.0201 | 7.5 | 0.2953 | 38 | 3  | ●     |

| Product No.   | ØD   |        | ℓ    |        | L  | d  | Stock |
|---------------|------|--------|------|--------|----|----|-------|
|               | mm   | inch   | mm   | inch   | mm | mm |       |
| ADRL-SUS-0052 | 0.52 | 0.0205 | 7.5  | 0.2953 | 38 | 3  | ●     |
| ADRL-SUS-0053 | 0.53 | 0.0209 | 7.5  | 0.2953 | 38 | 3  | ●     |
| ADRL-SUS-0054 | 0.54 | 0.0213 | 7.5  | 0.2953 | 38 | 3  | ●     |
| ADRL-SUS-0055 | 0.55 | 0.0217 | 8.5  | 0.3346 | 38 | 3  | ●     |
| ADRL-SUS-0056 | 0.56 | 0.0220 | 8.5  | 0.3346 | 38 | 3  | ●     |
| ADRL-SUS-0057 | 0.57 | 0.0224 | 8.5  | 0.3346 | 38 | 3  | ●     |
| ADRL-SUS-0058 | 0.58 | 0.0228 | 8.5  | 0.3346 | 38 | 3  | ●     |
| ADRL-SUS-0059 | 0.59 | 0.0232 | 8.5  | 0.3346 | 38 | 3  | ●     |
| ADRL-SUS-0060 | 0.60 | 0.0236 | 9    | 0.3543 | 38 | 3  | ●     |
| ADRL-SUS-0061 | 0.61 | 0.0240 | 9    | 0.3543 | 38 | 3  | ●     |
| ADRL-SUS-0062 | 0.62 | 0.0244 | 9    | 0.3543 | 38 | 3  | ●     |
| ADRL-SUS-0063 | 0.63 | 0.0248 | 9    | 0.3543 | 38 | 3  | ●     |
| ADRL-SUS-0064 | 0.64 | 0.0252 | 9    | 0.3543 | 38 | 3  | ●     |
| ADRL-SUS-0065 | 0.65 | 0.0256 | 10   | 0.3937 | 38 | 3  | ●     |
| ADRL-SUS-0066 | 0.66 | 0.0260 | 10   | 0.3937 | 38 | 3  | ●     |
| ADRL-SUS-0067 | 0.67 | 0.0264 | 10   | 0.3937 | 38 | 3  | ●     |
| ADRL-SUS-0068 | 0.68 | 0.0268 | 10   | 0.3937 | 38 | 3  | ●     |
| ADRL-SUS-0069 | 0.69 | 0.0272 | 10   | 0.3937 | 38 | 3  | ●     |
| ADRL-SUS-0070 | 0.70 | 0.0276 | 10.5 | 0.4134 | 38 | 3  | ●     |
| ADRL-SUS-0071 | 0.71 | 0.0280 | 10.5 | 0.4134 | 38 | 3  | ●     |
| ADRL-SUS-0072 | 0.72 | 0.0283 | 10.5 | 0.4134 | 38 | 3  | ●     |
| ADRL-SUS-0073 | 0.73 | 0.0287 | 10.5 | 0.4134 | 38 | 3  | ●     |
| ADRL-SUS-0074 | 0.74 | 0.0291 | 10.5 | 0.4134 | 38 | 3  | ●     |
| ADRL-SUS-0075 | 0.75 | 0.0295 | 11.5 | 0.4528 | 38 | 3  | ●     |
| ADRL-SUS-0076 | 0.76 | 0.0299 | 11.5 | 0.4528 | 38 | 3  | ●     |
| ADRL-SUS-0077 | 0.77 | 0.0303 | 11.5 | 0.4528 | 38 | 3  | ●     |
| ADRL-SUS-0078 | 0.78 | 0.0307 | 11.5 | 0.4528 | 38 | 3  | ●     |
| ADRL-SUS-0079 | 0.79 | 0.0311 | 11.5 | 0.4528 | 38 | 3  | ●     |
| ADRL-SUS-0080 | 0.80 | 0.0315 | 12.5 | 0.4921 | 45 | 3  | ●     |
| ADRL-SUS-0081 | 0.81 | 0.0319 | 12.5 | 0.4921 | 45 | 3  | ●     |
| ADRL-SUS-0082 | 0.82 | 0.0323 | 12.5 | 0.4921 | 45 | 3  | ●     |
| ADRL-SUS-0083 | 0.83 | 0.0327 | 12.5 | 0.4921 | 45 | 3  | ●     |
| ADRL-SUS-0084 | 0.84 | 0.0331 | 12.5 | 0.4921 | 45 | 3  | ●     |
| ADRL-SUS-0085 | 0.85 | 0.0335 | 12.5 | 0.4921 | 45 | 3  | ●     |
| ADRL-SUS-0086 | 0.86 | 0.0339 | 12.5 | 0.4921 | 45 | 3  | ●     |
| ADRL-SUS-0087 | 0.87 | 0.0343 | 12.5 | 0.4921 | 45 | 3  | ●     |
| ADRL-SUS-0088 | 0.88 | 0.0346 | 12.5 | 0.4921 | 45 | 3  | ●     |
| ADRL-SUS-0089 | 0.89 | 0.0350 | 12.5 | 0.4921 | 45 | 3  | ●     |
| ADRL-SUS-0090 | 0.90 | 0.0354 | 14   | 0.5512 | 45 | 3  | ●     |
| ADRL-SUS-0091 | 0.91 | 0.0358 | 14   | 0.5512 | 45 | 3  | ●     |
| ADRL-SUS-0092 | 0.92 | 0.0362 | 14   | 0.5512 | 45 | 3  | ●     |
| ADRL-SUS-0093 | 0.93 | 0.0366 | 14   | 0.5512 | 45 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ○             | ○            | ◎           | ○                | ○         |                 |               | △             | ○               | ◎               |          |

◎ Best ○ Good △ OK

| Product No.   | ØD   |        | ℓ  |        | L  | d  | Stock |
|---------------|------|--------|----|--------|----|----|-------|
|               | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SUS-0094 | 0.94 | 0.0370 | 14 | 0.5512 | 45 | 3  | ●     |
| ADRL-SUS-0095 | 0.95 | 0.0374 | 14 | 0.5512 | 45 | 3  | ●     |
| ADRL-SUS-0096 | 0.96 | 0.0378 | 14 | 0.5512 | 45 | 3  | ●     |
| ADRL-SUS-0097 | 0.97 | 0.0382 | 14 | 0.5512 | 45 | 3  | ●     |
| ADRL-SUS-0098 | 0.98 | 0.0386 | 14 | 0.5512 | 45 | 3  | ●     |
| ADRL-SUS-0099 | 0.99 | 0.0390 | 14 | 0.5512 | 45 | 3  | ●     |
| ADRL-SUS-0100 | 1.00 | 0.0394 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0101 | 1.01 | 0.0398 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0102 | 1.02 | 0.0402 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0103 | 1.03 | 0.0406 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0104 | 1.04 | 0.0409 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0105 | 1.05 | 0.0413 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0106 | 1.06 | 0.0417 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0107 | 1.07 | 0.0421 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0108 | 1.08 | 0.0425 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0109 | 1.09 | 0.0429 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0110 | 1.10 | 0.0433 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0111 | 1.11 | 0.0437 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0112 | 1.12 | 0.0441 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0113 | 1.13 | 0.0445 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0114 | 1.14 | 0.0449 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0115 | 1.15 | 0.0453 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0116 | 1.16 | 0.0457 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0117 | 1.17 | 0.0461 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0118 | 1.18 | 0.0465 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0119 | 1.19 | 0.0469 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0120 | 1.20 | 0.0472 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0121 | 1.21 | 0.0476 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0122 | 1.22 | 0.0480 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0123 | 1.23 | 0.0484 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0124 | 1.24 | 0.0488 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0125 | 1.25 | 0.0492 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0126 | 1.26 | 0.0496 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0127 | 1.27 | 0.0500 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0128 | 1.28 | 0.0504 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0129 | 1.29 | 0.0508 | 15 | 0.5906 | 45 | 3  | ●     |
| ADRL-SUS-0130 | 1.30 | 0.0512 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0131 | 1.31 | 0.0516 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0132 | 1.32 | 0.0520 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0133 | 1.33 | 0.0524 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0134 | 1.34 | 0.0528 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0135 | 1.35 | 0.0531 | 17 | 0.6693 | 45 | 3  | ●     |

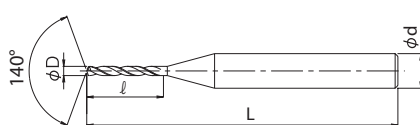
| Product No.   | ØD   |        | ℓ  |        | L  | d  | Stock |
|---------------|------|--------|----|--------|----|----|-------|
|               | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SUS-0136 | 1.36 | 0.0535 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0137 | 1.37 | 0.0539 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0138 | 1.38 | 0.0543 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0139 | 1.39 | 0.0547 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0140 | 1.40 | 0.0551 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0141 | 1.41 | 0.0555 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0142 | 1.42 | 0.0559 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0143 | 1.43 | 0.0563 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0144 | 1.44 | 0.0567 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0145 | 1.45 | 0.0571 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0146 | 1.46 | 0.0575 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0147 | 1.47 | 0.0579 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0148 | 1.48 | 0.0583 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0149 | 1.49 | 0.0587 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0150 | 1.50 | 0.0591 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0151 | 1.51 | 0.0594 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0152 | 1.52 | 0.0598 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0153 | 1.53 | 0.0602 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0154 | 1.54 | 0.0606 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0155 | 1.55 | 0.0610 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0156 | 1.56 | 0.0614 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0157 | 1.57 | 0.0618 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0158 | 1.58 | 0.0622 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0159 | 1.59 | 0.0626 | 17 | 0.6693 | 45 | 3  | ●     |
| ADRL-SUS-0160 | 1.60 | 0.0630 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0161 | 1.61 | 0.0634 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0162 | 1.62 | 0.0638 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0163 | 1.63 | 0.0642 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0164 | 1.64 | 0.0646 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0165 | 1.65 | 0.0650 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0166 | 1.66 | 0.0654 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0167 | 1.67 | 0.0657 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0168 | 1.68 | 0.0661 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0169 | 1.69 | 0.0665 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0170 | 1.70 | 0.0669 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0171 | 1.71 | 0.0673 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0172 | 1.72 | 0.0677 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0173 | 1.73 | 0.0681 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0174 | 1.74 | 0.0685 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0175 | 1.75 | 0.0689 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0176 | 1.76 | 0.0693 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0177 | 1.77 | 0.0697 | 20 | 0.7874 | 50 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

Next Page ▶

# ADRL-SUS(Cont.)

LONG, FCS COATED, FOR HARD-TO-CUT MATERIALS



ØD Tolerance:  
+0/-0.01 mm

| Product No.   | ØD   |        | ℓ  |        | L  | d  | Stock |
|---------------|------|--------|----|--------|----|----|-------|
|               | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SUS-0178 | 1.78 | 0.0701 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0179 | 1.79 | 0.0705 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0180 | 1.80 | 0.0709 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0181 | 1.81 | 0.0713 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0182 | 1.82 | 0.0717 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0183 | 1.83 | 0.0720 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0184 | 1.84 | 0.0724 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0185 | 1.85 | 0.0728 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0186 | 1.86 | 0.0732 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0187 | 1.87 | 0.0736 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0188 | 1.88 | 0.0740 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0189 | 1.89 | 0.0744 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0190 | 1.90 | 0.0748 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0191 | 1.91 | 0.0752 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0192 | 1.92 | 0.0756 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0193 | 1.93 | 0.0760 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0194 | 1.94 | 0.0764 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0195 | 1.95 | 0.0768 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0196 | 1.96 | 0.0772 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0197 | 1.97 | 0.0776 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0198 | 1.98 | 0.0780 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0199 | 1.99 | 0.0783 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0200 | 2.00 | 0.0787 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0201 | 2.01 | 0.0791 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0202 | 2.02 | 0.0795 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0203 | 2.03 | 0.0799 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0204 | 2.04 | 0.0803 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0205 | 2.05 | 0.0807 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0206 | 2.06 | 0.0811 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0207 | 2.07 | 0.0815 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0208 | 2.08 | 0.0819 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0209 | 2.09 | 0.0823 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0210 | 2.10 | 0.0827 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0211 | 2.11 | 0.0831 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0212 | 2.12 | 0.0835 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0213 | 2.13 | 0.0839 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0214 | 2.14 | 0.0843 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0215 | 2.15 | 0.0846 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0216 | 2.16 | 0.0850 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0217 | 2.17 | 0.0854 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0218 | 2.18 | 0.0858 | 20 | 0.7874 | 50 | 3  | ●     |
| ADRL-SUS-0219 | 2.19 | 0.0862 | 20 | 0.7874 | 50 | 3  | ●     |

| Product No.   | ØD   |        | ℓ  |        | L  | d  | Stock |
|---------------|------|--------|----|--------|----|----|-------|
|               | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SUS-0220 | 2.20 | 0.0866 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0221 | 2.21 | 0.0870 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0222 | 2.22 | 0.0874 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0223 | 2.23 | 0.0878 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0224 | 2.24 | 0.0882 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0225 | 2.25 | 0.0886 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0226 | 2.26 | 0.0890 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0227 | 2.27 | 0.0894 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0228 | 2.28 | 0.0898 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0229 | 2.29 | 0.0902 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0230 | 2.30 | 0.0906 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0231 | 2.31 | 0.0909 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0232 | 2.32 | 0.0913 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0233 | 2.33 | 0.0917 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0234 | 2.34 | 0.0921 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0235 | 2.35 | 0.0925 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0236 | 2.36 | 0.0929 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0237 | 2.37 | 0.0933 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0238 | 2.38 | 0.0937 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0239 | 2.39 | 0.0941 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0240 | 2.40 | 0.0945 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0241 | 2.41 | 0.0949 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0242 | 2.42 | 0.0953 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0243 | 2.43 | 0.0957 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0244 | 2.44 | 0.0961 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0245 | 2.45 | 0.0965 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0246 | 2.46 | 0.0969 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0247 | 2.47 | 0.0972 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0248 | 2.48 | 0.0976 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0249 | 2.49 | 0.0980 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0250 | 2.50 | 0.0984 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0251 | 2.51 | 0.0988 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0252 | 2.52 | 0.0992 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0253 | 2.53 | 0.0996 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0254 | 2.54 | 0.1000 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0255 | 2.55 | 0.1004 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0256 | 2.56 | 0.1008 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0257 | 2.57 | 0.1012 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0258 | 2.58 | 0.1016 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0259 | 2.59 | 0.1020 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0260 | 2.60 | 0.1024 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0261 | 2.61 | 0.1028 | 22 | 0.8661 | 50 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ○             | ○            | ◎           | ○                | ○         |                 |               | △             | ○               | ◎               |          |

◎ Best ○ Good △ OK

| Product No.   | ØD   |        | ℓ  |        | L  | d  | Stock |
|---------------|------|--------|----|--------|----|----|-------|
|               | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SUS-0262 | 2.62 | 0.1031 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0263 | 2.63 | 0.1035 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0264 | 2.64 | 0.1039 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0265 | 2.65 | 0.1043 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0266 | 2.66 | 0.1047 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0267 | 2.67 | 0.1051 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0268 | 2.68 | 0.1055 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0269 | 2.69 | 0.1059 | 22 | 0.8661 | 50 | 3  | ●     |
| ADRL-SUS-0270 | 2.70 | 0.1063 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0271 | 2.71 | 0.1067 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0272 | 2.72 | 0.1071 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0273 | 2.73 | 0.1075 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0274 | 2.74 | 0.1079 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0275 | 2.75 | 0.1083 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0276 | 2.76 | 0.1087 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0277 | 2.77 | 0.1091 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0278 | 2.78 | 0.1094 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0279 | 2.79 | 0.1098 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0280 | 2.80 | 0.1102 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0281 | 2.81 | 0.1106 | 25 | 0.9843 | 60 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Product No.   | ØD   |        | ℓ  |        | L  | d  | Stock |
|---------------|------|--------|----|--------|----|----|-------|
|               | mm   | inch   | mm | inch   | mm | mm |       |
| ADRL-SUS-0282 | 2.82 | 0.1110 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0283 | 2.83 | 0.1114 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0284 | 2.84 | 0.1118 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0285 | 2.85 | 0.1122 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0286 | 2.86 | 0.1126 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0287 | 2.87 | 0.1130 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0288 | 2.88 | 0.1134 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0289 | 2.89 | 0.1138 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0290 | 2.90 | 0.1142 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0291 | 2.91 | 0.1146 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0292 | 2.92 | 0.1150 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0293 | 2.93 | 0.1154 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0294 | 2.94 | 0.1157 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0295 | 2.95 | 0.1161 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0296 | 2.96 | 0.1165 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0297 | 2.97 | 0.1169 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0298 | 2.98 | 0.1173 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0299 | 2.99 | 0.1177 | 25 | 0.9843 | 60 | 3  | ●     |
| ADRL-SUS-0300 | 3.00 | 0.1181 | 25 | 0.9843 | 60 | 3  | ●     |

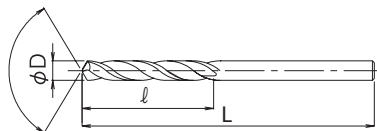
# STRAIGHT SHANK DRILLS

# ADS

REGULAR, UNCOATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0 / -0.01 mm (Ø0.X mm)  
+0 / -0.005 mm (Ø0.0X mm)



| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   | mm |       |
| ADS-0030    | 0.30 | 0.0118 | 4  | 0.1575 | 30 | ●     |
| ADS-0031    | 0.31 | 0.0122 | 4  | 0.1575 | 30 | ●     |
| ADS-0032    | 0.32 | 0.0126 | 4  | 0.1575 | 30 | ●     |
| ADS-0033    | 0.33 | 0.0130 | 4  | 0.1575 | 30 | ●     |
| ADS-0034    | 0.34 | 0.0134 | 4  | 0.1575 | 30 | ●     |
| ADS-0035    | 0.35 | 0.0138 | 4  | 0.1575 | 30 | ●     |
| ADS-0036    | 0.36 | 0.0142 | 4  | 0.1575 | 30 | ●     |
| ADS-0037    | 0.37 | 0.0146 | 4  | 0.1575 | 30 | ●     |
| ADS-0038    | 0.38 | 0.0150 | 4  | 0.1575 | 30 | ●     |
| ADS-0039    | 0.39 | 0.0154 | 4  | 0.1575 | 30 | ●     |
| ADS-0040    | 0.40 | 0.0157 | 5  | 0.1969 | 30 | ●     |
| ADS-0041    | 0.41 | 0.0161 | 5  | 0.1969 | 30 | ●     |
| ADS-0042    | 0.42 | 0.0165 | 5  | 0.1969 | 30 | ●     |
| ADS-0043    | 0.43 | 0.0169 | 5  | 0.1969 | 30 | ●     |
| ADS-0044    | 0.44 | 0.0173 | 5  | 0.1969 | 30 | ●     |
| ADS-0045    | 0.45 | 0.0177 | 5  | 0.1969 | 30 | ●     |
| ADS-0046    | 0.46 | 0.0181 | 5  | 0.1969 | 30 | ●     |
| ADS-0047    | 0.47 | 0.0185 | 5  | 0.1969 | 30 | ●     |
| ADS-0048    | 0.48 | 0.0189 | 5  | 0.1969 | 30 | ●     |
| ADS-0049    | 0.49 | 0.0193 | 5  | 0.1969 | 30 | ●     |
| ADS-0050    | 0.50 | 0.0197 | 6  | 0.2362 | 30 | ●     |
| ADS-0051    | 0.51 | 0.0201 | 6  | 0.2362 | 30 | ●     |
| ADS-0052    | 0.52 | 0.0205 | 6  | 0.2362 | 30 | ●     |
| ADS-0053    | 0.53 | 0.0209 | 6  | 0.2362 | 30 | ●     |
| ADS-0054    | 0.54 | 0.0213 | 6  | 0.2362 | 30 | ●     |
| ADS-0055    | 0.55 | 0.0217 | 6  | 0.2362 | 30 | ●     |
| ADS-0056    | 0.56 | 0.0220 | 6  | 0.2362 | 30 | ●     |
| ADS-0057    | 0.57 | 0.0224 | 6  | 0.2362 | 30 | ●     |
| ADS-0058    | 0.58 | 0.0228 | 6  | 0.2362 | 30 | ●     |
| ADS-0059    | 0.59 | 0.0232 | 6  | 0.2362 | 30 | ●     |
| ADS-0060    | 0.60 | 0.0236 | 6  | 0.2362 | 30 | ●     |
| ADS-0061    | 0.61 | 0.0240 | 6  | 0.2362 | 30 | ●     |
| ADS-0062    | 0.62 | 0.0244 | 6  | 0.2362 | 30 | ●     |
| ADS-0063    | 0.63 | 0.0248 | 6  | 0.2362 | 30 | ●     |
| ADS-0064    | 0.64 | 0.0252 | 6  | 0.2362 | 30 | ●     |
| ADS-0065    | 0.65 | 0.0256 | 6  | 0.2362 | 30 | ●     |
| ADS-0066    | 0.66 | 0.0260 | 6  | 0.2362 | 30 | ●     |
| ADS-0067    | 0.67 | 0.0264 | 6  | 0.2362 | 30 | ●     |
| ADS-0068    | 0.68 | 0.0268 | 6  | 0.2362 | 30 | ●     |
| ADS-0069    | 0.69 | 0.0272 | 6  | 0.2362 | 30 | ●     |
| ADS-0070    | 0.70 | 0.0276 | 12 | 0.4724 | 40 | ●     |
| ADS-0071    | 0.71 | 0.0280 | 12 | 0.4724 | 40 | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   | mm |       |
| ADS-0072    | 0.72 | 0.0283 | 12 | 0.4724 | 40 | ●     |
| ADS-0073    | 0.73 | 0.0287 | 12 | 0.4724 | 40 | ●     |
| ADS-0074    | 0.74 | 0.0291 | 12 | 0.4724 | 40 | ●     |
| ADS-0075    | 0.75 | 0.0295 | 12 | 0.4724 | 40 | ●     |
| ADS-0076    | 0.76 | 0.0299 | 12 | 0.4724 | 40 | ●     |
| ADS-0077    | 0.77 | 0.0303 | 12 | 0.4724 | 40 | ●     |
| ADS-0078    | 0.78 | 0.0307 | 12 | 0.4724 | 40 | ●     |
| ADS-0079    | 0.79 | 0.0311 | 12 | 0.4724 | 40 | ●     |
| ADS-0080    | 0.80 | 0.0315 | 12 | 0.4724 | 40 | ●     |
| ADS-0081    | 0.81 | 0.0319 | 12 | 0.4724 | 40 | ●     |
| ADS-0082    | 0.82 | 0.0323 | 12 | 0.4724 | 40 | ●     |
| ADS-0083    | 0.83 | 0.0327 | 12 | 0.4724 | 40 | ●     |
| ADS-0084    | 0.84 | 0.0331 | 12 | 0.4724 | 40 | ●     |
| ADS-0085    | 0.85 | 0.0335 | 12 | 0.4724 | 40 | ●     |
| ADS-0086    | 0.86 | 0.0339 | 12 | 0.4724 | 40 | ●     |
| ADS-0087    | 0.87 | 0.0343 | 12 | 0.4724 | 40 | ●     |
| ADS-0088    | 0.88 | 0.0346 | 12 | 0.4724 | 40 | ●     |
| ADS-0089    | 0.89 | 0.0350 | 12 | 0.4724 | 40 | ●     |
| ADS-0090    | 0.90 | 0.0354 | 12 | 0.4724 | 40 | ●     |
| ADS-0091    | 0.91 | 0.0358 | 12 | 0.4724 | 40 | ●     |
| ADS-0092    | 0.92 | 0.0362 | 12 | 0.4724 | 40 | ●     |
| ADS-0093    | 0.93 | 0.0366 | 12 | 0.4724 | 40 | ●     |
| ADS-0094    | 0.94 | 0.0370 | 12 | 0.4724 | 40 | ●     |
| ADS-0095    | 0.95 | 0.0374 | 12 | 0.4724 | 40 | ●     |
| ADS-0096    | 0.96 | 0.0378 | 12 | 0.4724 | 40 | ●     |
| ADS-0097    | 0.97 | 0.0382 | 12 | 0.4724 | 40 | ●     |
| ADS-0098    | 0.98 | 0.0386 | 12 | 0.4724 | 40 | ●     |
| ADS-0099    | 0.99 | 0.0390 | 12 | 0.4724 | 40 | ●     |
| ADS-0100    | 1.00 | 0.0394 | 15 | 0.5906 | 40 | ●     |
| ADS-0101    | 1.01 | 0.0398 | 15 | 0.5906 | 40 | ●     |
| ADS-0102    | 1.02 | 0.0402 | 15 | 0.5906 | 40 | ●     |
| ADS-0103    | 1.03 | 0.0406 | 15 | 0.5906 | 40 | ●     |
| ADS-0104    | 1.04 | 0.0409 | 15 | 0.5906 | 40 | ●     |
| ADS-0105    | 1.05 | 0.0413 | 15 | 0.5906 | 40 | ●     |
| ADS-0106    | 1.06 | 0.0417 | 15 | 0.5906 | 40 | ●     |
| ADS-0107    | 1.07 | 0.0421 | 15 | 0.5906 | 40 | ●     |
| ADS-0108    | 1.08 | 0.0425 | 15 | 0.5906 | 40 | ●     |
| ADS-0109    | 1.09 | 0.0429 | 15 | 0.5906 | 40 | ●     |
| ADS-0110    | 1.10 | 0.0433 | 15 | 0.5906 | 40 | ●     |
| ADS-0111    | 1.11 | 0.0437 | 15 | 0.5906 | 40 | ●     |
| ADS-0112    | 1.12 | 0.0441 | 15 | 0.5906 | 40 | ●     |
| ADS-0113    | 1.13 | 0.0445 | 15 | 0.5906 | 40 | ●     |

● US Stock Item ○ Japan Stock Item

# STRAIGHT SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |

⊙ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   |    |       |
| ADS-0114    | 1.14 | 0.0449 | 15 | 0.5906 | 40 | ●     |
| ADS-0115    | 1.15 | 0.0453 | 15 | 0.5906 | 40 | ●     |
| ADS-0116    | 1.16 | 0.0457 | 15 | 0.5906 | 40 | ●     |
| ADS-0117    | 1.17 | 0.0461 | 15 | 0.5906 | 40 | ●     |
| ADS-0118    | 1.18 | 0.0465 | 15 | 0.5906 | 40 | ●     |
| ADS-0119    | 1.19 | 0.0469 | 15 | 0.5906 | 40 | ●     |
| ADS-0120    | 1.20 | 0.0472 | 15 | 0.5906 | 40 | ●     |
| ADS-0121    | 1.21 | 0.0476 | 15 | 0.5906 | 40 | ●     |
| ADS-0122    | 1.22 | 0.0480 | 15 | 0.5906 | 40 | ●     |
| ADS-0123    | 1.23 | 0.0484 | 15 | 0.5906 | 40 | ●     |
| ADS-0124    | 1.24 | 0.0488 | 15 | 0.5906 | 40 | ●     |
| ADS-0125    | 1.25 | 0.0492 | 15 | 0.5906 | 40 | ●     |
| ADS-0126    | 1.26 | 0.0496 | 15 | 0.5906 | 40 | ●     |
| ADS-0127    | 1.27 | 0.0500 | 15 | 0.5906 | 40 | ●     |
| ADS-0128    | 1.28 | 0.0504 | 15 | 0.5906 | 40 | ●     |
| ADS-0129    | 1.29 | 0.0508 | 15 | 0.5906 | 40 | ●     |
| ADS-0130    | 1.30 | 0.0512 | 16 | 0.6299 | 40 | ●     |
| ADS-0131    | 1.31 | 0.0516 | 16 | 0.6299 | 40 | ●     |
| ADS-0132    | 1.32 | 0.0520 | 16 | 0.6299 | 40 | ●     |
| ADS-0133    | 1.33 | 0.0524 | 16 | 0.6299 | 40 | ●     |
| ADS-0134    | 1.34 | 0.0528 | 16 | 0.6299 | 40 | ●     |
| ADS-0135    | 1.35 | 0.0531 | 16 | 0.6299 | 40 | ●     |
| ADS-0136    | 1.36 | 0.0535 | 16 | 0.6299 | 40 | ●     |
| ADS-0137    | 1.37 | 0.0539 | 16 | 0.6299 | 40 | ●     |
| ADS-0138    | 1.38 | 0.0543 | 16 | 0.6299 | 40 | ●     |
| ADS-0139    | 1.39 | 0.0547 | 16 | 0.6299 | 40 | ●     |
| ADS-0140    | 1.40 | 0.0551 | 16 | 0.6299 | 40 | ●     |
| ADS-0141    | 1.41 | 0.0555 | 16 | 0.6299 | 40 | ●     |
| ADS-0142    | 1.42 | 0.0559 | 16 | 0.6299 | 40 | ●     |
| ADS-0143    | 1.43 | 0.0563 | 16 | 0.6299 | 40 | ●     |
| ADS-0144    | 1.44 | 0.0567 | 16 | 0.6299 | 40 | ●     |
| ADS-0145    | 1.45 | 0.0571 | 16 | 0.6299 | 40 | ●     |
| ADS-0146    | 1.46 | 0.0575 | 16 | 0.6299 | 40 | ●     |
| ADS-0147    | 1.47 | 0.0579 | 16 | 0.6299 | 40 | ●     |
| ADS-0148    | 1.48 | 0.0583 | 16 | 0.6299 | 40 | ●     |
| ADS-0149    | 1.49 | 0.0587 | 16 | 0.6299 | 40 | ●     |
| ADS-0150    | 1.50 | 0.0591 | 16 | 0.6299 | 40 | ●     |
| ADS-0151    | 1.51 | 0.0594 | 16 | 0.6299 | 40 | ●     |
| ADS-0152    | 1.52 | 0.0598 | 16 | 0.6299 | 40 | ●     |
| ADS-0153    | 1.53 | 0.0602 | 16 | 0.6299 | 40 | ●     |
| ADS-0154    | 1.54 | 0.0606 | 16 | 0.6299 | 40 | ●     |
| ADS-0155    | 1.55 | 0.0610 | 16 | 0.6299 | 40 | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   |    |       |
| ADS-0156    | 1.56 | 0.0614 | 16 | 0.6299 | 40 | ●     |
| ADS-0157    | 1.57 | 0.0618 | 16 | 0.6299 | 40 | ●     |
| ADS-0158    | 1.58 | 0.0622 | 16 | 0.6299 | 40 | ●     |
| ADS-0159    | 1.59 | 0.0626 | 16 | 0.6299 | 40 | ●     |
| ADS-0160    | 1.60 | 0.0630 | 18 | 0.7087 | 40 | ●     |
| ADS-0161    | 1.61 | 0.0634 | 18 | 0.7087 | 40 | ●     |
| ADS-0162    | 1.62 | 0.0638 | 18 | 0.7087 | 40 | ●     |
| ADS-0163    | 1.63 | 0.0642 | 18 | 0.7087 | 40 | ●     |
| ADS-0164    | 1.64 | 0.0646 | 18 | 0.7087 | 40 | ●     |
| ADS-0165    | 1.65 | 0.0650 | 18 | 0.7087 | 40 | ●     |
| ADS-0166    | 1.66 | 0.0654 | 18 | 0.7087 | 40 | ●     |
| ADS-0167    | 1.67 | 0.0657 | 18 | 0.7087 | 40 | ●     |
| ADS-0168    | 1.68 | 0.0661 | 18 | 0.7087 | 40 | ●     |
| ADS-0169    | 1.69 | 0.0665 | 18 | 0.7087 | 40 | ●     |
| ADS-0170    | 1.70 | 0.0669 | 18 | 0.7087 | 40 | ●     |
| ADS-0171    | 1.71 | 0.0673 | 18 | 0.7087 | 40 | ●     |
| ADS-0172    | 1.72 | 0.0677 | 18 | 0.7087 | 40 | ●     |
| ADS-0173    | 1.73 | 0.0681 | 18 | 0.7087 | 40 | ●     |
| ADS-0174    | 1.74 | 0.0685 | 18 | 0.7087 | 40 | ●     |
| ADS-0175    | 1.75 | 0.0689 | 18 | 0.7087 | 40 | ●     |
| ADS-0176    | 1.76 | 0.0693 | 18 | 0.7087 | 40 | ●     |
| ADS-0177    | 1.77 | 0.0697 | 18 | 0.7087 | 40 | ●     |
| ADS-0178    | 1.78 | 0.0701 | 18 | 0.7087 | 40 | ●     |
| ADS-0179    | 1.79 | 0.0705 | 18 | 0.7087 | 40 | ●     |
| ADS-0180    | 1.80 | 0.0709 | 18 | 0.7087 | 40 | ●     |
| ADS-0181    | 1.81 | 0.0713 | 18 | 0.7087 | 40 | ●     |
| ADS-0182    | 1.82 | 0.0717 | 18 | 0.7087 | 40 | ●     |
| ADS-0183    | 1.83 | 0.0720 | 18 | 0.7087 | 40 | ●     |
| ADS-0184    | 1.84 | 0.0724 | 18 | 0.7087 | 40 | ●     |
| ADS-0185    | 1.85 | 0.0728 | 18 | 0.7087 | 40 | ●     |
| ADS-0186    | 1.86 | 0.0732 | 18 | 0.7087 | 40 | ●     |
| ADS-0187    | 1.87 | 0.0736 | 18 | 0.7087 | 40 | ●     |
| ADS-0188    | 1.88 | 0.0740 | 18 | 0.7087 | 40 | ●     |
| ADS-0189    | 1.89 | 0.0744 | 18 | 0.7087 | 40 | ●     |
| ADS-0190    | 1.90 | 0.0748 | 18 | 0.7087 | 40 | ●     |
| ADS-0191    | 1.91 | 0.0752 | 18 | 0.7087 | 40 | ●     |
| ADS-0192    | 1.92 | 0.0756 | 18 | 0.7087 | 40 | ●     |
| ADS-0193    | 1.93 | 0.0760 | 18 | 0.7087 | 40 | ●     |
| ADS-0194    | 1.94 | 0.0764 | 18 | 0.7087 | 40 | ●     |
| ADS-0195    | 1.95 | 0.0768 | 18 | 0.7087 | 40 | ●     |
| ADS-0196    | 1.96 | 0.0772 | 18 | 0.7087 | 40 | ●     |
| ADS-0197    | 1.97 | 0.0776 | 18 | 0.7087 | 40 | ●     |

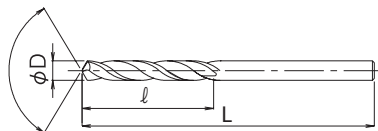
● US Stock Item ○ Japan Stock Item

Next Page ▶

# STRAIGHT SHANK DRILLS

## ADS (Cont.)

REGULAR, UNCOATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.01 mm (Ø0.X mm)  
+0/-0.005 mm (Ø0.0X mm)

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   | mm     |       |
| ADS-0198    | 1.98 | 0.0780 | 18 | 0.7087 | 40     | ●     |
| ADS-0199    | 1.99 | 0.0783 | 18 | 0.7087 | 40     | ●     |
| ADS-0200    | 2.00 | 0.0787 | 18 | 0.7087 | 40     | ●     |
| ADS-0201    | 2.01 | 0.0791 | 18 | 0.7087 | 40     | ●     |
| ADS-0202    | 2.02 | 0.0795 | 18 | 0.7087 | 40     | ●     |
| ADS-0203    | 2.03 | 0.0799 | 18 | 0.7087 | 40     | ●     |
| ADS-0204    | 2.04 | 0.0803 | 18 | 0.7087 | 40     | ●     |
| ADS-0205    | 2.05 | 0.0807 | 18 | 0.7087 | 40     | ●     |
| ADS-0206    | 2.06 | 0.0811 | 18 | 0.7087 | 40     | ●     |
| ADS-0207    | 2.07 | 0.0815 | 18 | 0.7087 | 40     | ●     |
| ADS-0208    | 2.08 | 0.0819 | 18 | 0.7087 | 40     | ●     |
| ADS-0209    | 2.09 | 0.0823 | 18 | 0.7087 | 40     | ●     |
| ADS-0210    | 2.10 | 0.0827 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0211    | 2.11 | 0.0831 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0212    | 2.12 | 0.0835 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0213    | 2.13 | 0.0839 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0214    | 2.14 | 0.0843 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0215    | 2.15 | 0.0846 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0216    | 2.16 | 0.0850 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0217    | 2.17 | 0.0854 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0218    | 2.18 | 0.0858 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0219    | 2.19 | 0.0862 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0220    | 2.20 | 0.0866 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0221    | 2.21 | 0.0870 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0222    | 2.22 | 0.0874 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0223    | 2.23 | 0.0878 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0224    | 2.24 | 0.0882 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0225    | 2.25 | 0.0886 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0226    | 2.26 | 0.0890 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0227    | 2.27 | 0.0894 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0228    | 2.28 | 0.0898 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0229    | 2.29 | 0.0902 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0230    | 2.30 | 0.0906 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0231    | 2.31 | 0.0909 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0232    | 2.32 | 0.0913 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0233    | 2.33 | 0.0917 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0234    | 2.34 | 0.0921 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0235    | 2.35 | 0.0925 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0236    | 2.36 | 0.0929 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0237    | 2.37 | 0.0933 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0238    | 2.38 | 0.0937 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0239    | 2.39 | 0.0941 | 20 | 0.7874 | 40(45) | ●     |

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   | mm     |       |
| ADS-0240    | 2.40 | 0.0945 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0241    | 2.41 | 0.0949 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0242    | 2.42 | 0.0953 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0243    | 2.43 | 0.0957 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0244    | 2.44 | 0.0961 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0245    | 2.45 | 0.0965 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0246    | 2.46 | 0.0969 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0247    | 2.47 | 0.0972 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0248    | 2.48 | 0.0976 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0249    | 2.49 | 0.0980 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0250    | 2.50 | 0.0984 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0251    | 2.51 | 0.0988 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0252    | 2.52 | 0.0992 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0253    | 2.53 | 0.0996 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0254    | 2.54 | 0.1000 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0255    | 2.55 | 0.1004 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0256    | 2.56 | 0.1008 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0257    | 2.57 | 0.1012 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0258    | 2.58 | 0.1016 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0259    | 2.59 | 0.1020 | 20 | 0.7874 | 40(45) | ●     |
| ADS-0260    | 2.60 | 0.1024 | 20 | 0.7874 | 45     | ●     |
| ADS-0261    | 2.61 | 0.1028 | 20 | 0.7874 | 45     | ●     |
| ADS-0262    | 2.62 | 0.1031 | 20 | 0.7874 | 45     | ●     |
| ADS-0263    | 2.63 | 0.1035 | 20 | 0.7874 | 45     | ●     |
| ADS-0264    | 2.64 | 0.1039 | 20 | 0.7874 | 45     | ●     |
| ADS-0265    | 2.65 | 0.1043 | 20 | 0.7874 | 45     | ●     |
| ADS-0266    | 2.66 | 0.1047 | 20 | 0.7874 | 45     | ●     |
| ADS-0267    | 2.67 | 0.1051 | 20 | 0.7874 | 45     | ●     |
| ADS-0268    | 2.68 | 0.1055 | 20 | 0.7874 | 45     | ●     |
| ADS-0269    | 2.69 | 0.1059 | 20 | 0.7874 | 45     | ●     |
| ADS-0270    | 2.70 | 0.1063 | 20 | 0.7874 | 45     | ●     |
| ADS-0271    | 2.71 | 0.1067 | 20 | 0.7874 | 45     | ●     |
| ADS-0272    | 2.72 | 0.1071 | 20 | 0.7874 | 45     | ●     |
| ADS-0273    | 2.73 | 0.1075 | 20 | 0.7874 | 45     | ●     |
| ADS-0274    | 2.74 | 0.1079 | 20 | 0.7874 | 45     | ●     |
| ADS-0275    | 2.75 | 0.1083 | 20 | 0.7874 | 45     | ●     |
| ADS-0276    | 2.76 | 0.1087 | 20 | 0.7874 | 45     | ●     |
| ADS-0277    | 2.77 | 0.1091 | 20 | 0.7874 | 45     | ●     |
| ADS-0278    | 2.78 | 0.1094 | 20 | 0.7874 | 45     | ●     |
| ADS-0279    | 2.79 | 0.1098 | 20 | 0.7874 | 45     | ●     |
| ADS-0280    | 2.80 | 0.1102 | 20 | 0.7874 | 45     | ●     |
| ADS-0281    | 2.81 | 0.1106 | 20 | 0.7874 | 45     | ●     |

● US Stock Item ○ Japan Stock Item

\* Overall length is being changed to figures in parentheses.

# STRAIGHT SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |

⊙ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   | mm |       |
| ADS-0282    | 2.82 | 0.1110 | 20 | 0.7874 | 45 | ●     |
| ADS-0283    | 2.83 | 0.1114 | 20 | 0.7874 | 45 | ●     |
| ADS-0284    | 2.84 | 0.1118 | 20 | 0.7874 | 45 | ●     |
| ADS-0285    | 2.85 | 0.1122 | 20 | 0.7874 | 45 | ●     |
| ADS-0286    | 2.86 | 0.1126 | 20 | 0.7874 | 45 | ●     |
| ADS-0287    | 2.87 | 0.1130 | 20 | 0.7874 | 45 | ●     |
| ADS-0288    | 2.88 | 0.1134 | 20 | 0.7874 | 45 | ●     |
| ADS-0289    | 2.89 | 0.1138 | 20 | 0.7874 | 45 | ●     |
| ADS-0290    | 2.90 | 0.1142 | 20 | 0.7874 | 45 | ●     |
| ADS-0291    | 2.91 | 0.1146 | 20 | 0.7874 | 45 | ●     |
| ADS-0292    | 2.92 | 0.1150 | 20 | 0.7874 | 45 | ●     |
| ADS-0293    | 2.93 | 0.1154 | 20 | 0.7874 | 45 | ●     |
| ADS-0294    | 2.94 | 0.1157 | 20 | 0.7874 | 45 | ●     |
| ADS-0295    | 2.95 | 0.1161 | 20 | 0.7874 | 45 | ●     |
| ADS-0296    | 2.96 | 0.1165 | 20 | 0.7874 | 45 | ●     |
| ADS-0297    | 2.97 | 0.1169 | 20 | 0.7874 | 45 | ●     |
| ADS-0298    | 2.98 | 0.1173 | 20 | 0.7874 | 45 | ●     |
| ADS-0299    | 2.99 | 0.1177 | 20 | 0.7874 | 45 | ●     |
| ADS-0300    | 3.00 | 0.1181 | 20 | 0.7874 | 45 | ●     |
| ADS-0301    | 3.01 | 0.1185 | 20 | 0.7874 | 45 | ○     |
| ADS-0302    | 3.02 | 0.1189 | 20 | 0.7874 | 45 | ○     |
| ADS-0303    | 3.03 | 0.1193 | 20 | 0.7874 | 45 | ○     |
| ADS-0304    | 3.04 | 0.1197 | 20 | 0.7874 | 45 | ○     |
| ADS-0305    | 3.05 | 0.1201 | 20 | 0.7874 | 45 | ○     |
| ADS-0306    | 3.06 | 0.1205 | 20 | 0.7874 | 45 | ○     |
| ADS-0307    | 3.07 | 0.1209 | 20 | 0.7874 | 45 | ○     |
| ADS-0308    | 3.08 | 0.1213 | 20 | 0.7874 | 45 | ○     |
| ADS-0309    | 3.09 | 0.1217 | 20 | 0.7874 | 45 | ○     |
| ADS-0310    | 3.10 | 0.1220 | 25 | 0.9843 | 50 | ○     |
| ADS-0311    | 3.11 | 0.1224 | 25 | 0.9843 | 50 | ○     |
| ADS-0312    | 3.12 | 0.1228 | 25 | 0.9843 | 50 | ○     |
| ADS-0313    | 3.13 | 0.1232 | 25 | 0.9843 | 50 | ○     |
| ADS-0314    | 3.14 | 0.1236 | 25 | 0.9843 | 50 | ○     |
| ADS-0315    | 3.15 | 0.1240 | 25 | 0.9843 | 50 | ○     |
| ADS-0316    | 3.16 | 0.1244 | 25 | 0.9843 | 50 | ○     |
| ADS-0317    | 3.17 | 0.1248 | 25 | 0.9843 | 50 | ○     |
| ADS-0318    | 3.18 | 0.1252 | 25 | 0.9843 | 50 | ○     |
| ADS-0319    | 3.19 | 0.1256 | 25 | 0.9843 | 50 | ○     |
| ADS-0320    | 3.20 | 0.1260 | 25 | 0.9843 | 50 | ○     |
| ADS-0321    | 3.21 | 0.1264 | 25 | 0.9843 | 50 | ○     |
| ADS-0322    | 3.22 | 0.1268 | 25 | 0.9843 | 50 | ○     |
| ADS-0323    | 3.23 | 0.1272 | 25 | 0.9843 | 50 | ○     |

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   | mm |       |
| ADS-0324    | 3.24 | 0.1276 | 25 | 0.9843 | 50 | ○     |
| ADS-0325    | 3.25 | 0.1280 | 25 | 0.9843 | 50 | ○     |
| ADS-0326    | 3.26 | 0.1283 | 25 | 0.9843 | 50 | ○     |
| ADS-0327    | 3.27 | 0.1287 | 25 | 0.9843 | 50 | ○     |
| ADS-0328    | 3.28 | 0.1291 | 25 | 0.9843 | 50 | ○     |
| ADS-0329    | 3.29 | 0.1295 | 25 | 0.9843 | 50 | ○     |
| ADS-0330    | 3.30 | 0.1299 | 25 | 0.9843 | 50 | ○     |
| ADS-0331    | 3.31 | 0.1303 | 25 | 0.9843 | 50 | ○     |
| ADS-0332    | 3.32 | 0.1307 | 25 | 0.9843 | 50 | ○     |
| ADS-0333    | 3.33 | 0.1311 | 25 | 0.9843 | 50 | ○     |
| ADS-0334    | 3.34 | 0.1315 | 25 | 0.9843 | 50 | ○     |
| ADS-0335    | 3.35 | 0.1319 | 25 | 0.9843 | 50 | ○     |
| ADS-0336    | 3.36 | 0.1323 | 25 | 0.9843 | 50 | ○     |
| ADS-0337    | 3.37 | 0.1327 | 25 | 0.9843 | 50 | ○     |
| ADS-0338    | 3.38 | 0.1331 | 25 | 0.9843 | 50 | ○     |
| ADS-0339    | 3.39 | 0.1335 | 25 | 0.9843 | 50 | ○     |
| ADS-0340    | 3.40 | 0.1339 | 25 | 0.9843 | 50 | ○     |
| ADS-0341    | 3.41 | 0.1343 | 25 | 0.9843 | 50 | ○     |
| ADS-0342    | 3.42 | 0.1346 | 25 | 0.9843 | 50 | ○     |
| ADS-0343    | 3.43 | 0.1350 | 25 | 0.9843 | 50 | ○     |
| ADS-0344    | 3.44 | 0.1354 | 25 | 0.9843 | 50 | ○     |
| ADS-0345    | 3.45 | 0.1358 | 25 | 0.9843 | 50 | ○     |
| ADS-0346    | 3.46 | 0.1362 | 25 | 0.9843 | 50 | ○     |
| ADS-0347    | 3.47 | 0.1366 | 25 | 0.9843 | 50 | ○     |
| ADS-0348    | 3.48 | 0.1370 | 25 | 0.9843 | 50 | ○     |
| ADS-0349    | 3.49 | 0.1374 | 25 | 0.9843 | 50 | ○     |
| ADS-0350    | 3.50 | 0.1378 | 25 | 0.9843 | 50 | ○     |
| ADS-0351    | 3.51 | 0.1382 | 25 | 0.9843 | 50 | ○     |
| ADS-0352    | 3.52 | 0.1386 | 25 | 0.9843 | 50 | ○     |
| ADS-0353    | 3.53 | 0.1390 | 25 | 0.9843 | 50 | ○     |
| ADS-0354    | 3.54 | 0.1394 | 25 | 0.9843 | 50 | ○     |
| ADS-0355    | 3.55 | 0.1398 | 25 | 0.9843 | 50 | ○     |
| ADS-0356    | 3.56 | 0.1402 | 25 | 0.9843 | 50 | ○     |
| ADS-0357    | 3.57 | 0.1406 | 25 | 0.9843 | 50 | ○     |
| ADS-0358    | 3.58 | 0.1409 | 25 | 0.9843 | 50 | ○     |
| ADS-0359    | 3.59 | 0.1413 | 25 | 0.9843 | 50 | ○     |
| ADS-0360    | 3.60 | 0.1417 | 27 | 1.0630 | 55 | ○     |
| ADS-0361    | 3.61 | 0.1421 | 27 | 1.0630 | 55 | ○     |
| ADS-0362    | 3.62 | 0.1425 | 27 | 1.0630 | 55 | ○     |
| ADS-0363    | 3.63 | 0.1429 | 27 | 1.0630 | 55 | ○     |
| ADS-0364    | 3.64 | 0.1433 | 27 | 1.0630 | 55 | ○     |
| ADS-0365    | 3.65 | 0.1437 | 27 | 1.0630 | 55 | ○     |

● US Stock Item ○ Japan Stock Item

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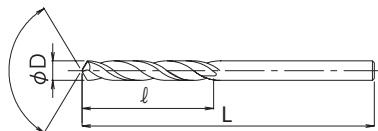
Cutting Conditions P.135



# STRAIGHT SHANK DRILLS

## ADS (Cont.)

REGULAR, UNCOATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0 / -0.01 mm (Ø0.X mm)  
+0 / -0.005 mm (Ø0.0X mm)

| Product No. | ØD   |        | ℓ  |        | L  |       |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   | mm | Stock |
| ADS-0366    | 3.66 | 0.1441 | 27 | 1.0630 | 55 | ○     |
| ADS-0367    | 3.67 | 0.1445 | 27 | 1.0630 | 55 | ○     |
| ADS-0368    | 3.68 | 0.1449 | 27 | 1.0630 | 55 | ○     |
| ADS-0369    | 3.69 | 0.1453 | 27 | 1.0630 | 55 | ○     |
| ADS-0370    | 3.70 | 0.1457 | 27 | 1.0630 | 55 | ○     |
| ADS-0371    | 3.71 | 0.1461 | 27 | 1.0630 | 55 | ○     |
| ADS-0372    | 3.72 | 0.1465 | 27 | 1.0630 | 55 | ○     |
| ADS-0373    | 3.73 | 0.1469 | 27 | 1.0630 | 55 | ○     |
| ADS-0374    | 3.74 | 0.1472 | 27 | 1.0630 | 55 | ○     |
| ADS-0375    | 3.75 | 0.1476 | 27 | 1.0630 | 55 | ○     |
| ADS-0376    | 3.76 | 0.1480 | 27 | 1.0630 | 55 | ○     |
| ADS-0377    | 3.77 | 0.1484 | 27 | 1.0630 | 55 | ○     |
| ADS-0378    | 3.78 | 0.1488 | 27 | 1.0630 | 55 | ○     |
| ADS-0379    | 3.79 | 0.1492 | 27 | 1.0630 | 55 | ○     |
| ADS-0380    | 3.80 | 0.1496 | 27 | 1.0630 | 55 | ○     |
| ADS-0381    | 3.81 | 0.1500 | 27 | 1.0630 | 55 | ○     |
| ADS-0382    | 3.82 | 0.1504 | 27 | 1.0630 | 55 | ○     |
| ADS-0383    | 3.83 | 0.1508 | 27 | 1.0630 | 55 | ○     |
| ADS-0384    | 3.84 | 0.1512 | 27 | 1.0630 | 55 | ○     |
| ADS-0385    | 3.85 | 0.1516 | 27 | 1.0630 | 55 | ○     |
| ADS-0386    | 3.86 | 0.1520 | 27 | 1.0630 | 55 | ○     |
| ADS-0387    | 3.87 | 0.1524 | 27 | 1.0630 | 55 | ○     |
| ADS-0388    | 3.88 | 0.1528 | 27 | 1.0630 | 55 | ○     |
| ADS-0389    | 3.89 | 0.1531 | 27 | 1.0630 | 55 | ○     |
| ADS-0390    | 3.90 | 0.1535 | 27 | 1.0630 | 55 | ○     |
| ADS-0391    | 3.91 | 0.1539 | 27 | 1.0630 | 55 | ○     |
| ADS-0392    | 3.92 | 0.1543 | 27 | 1.0630 | 55 | ○     |
| ADS-0393    | 3.93 | 0.1547 | 27 | 1.0630 | 55 | ○     |
| ADS-0394    | 3.94 | 0.1551 | 27 | 1.0630 | 55 | ○     |
| ADS-0395    | 3.95 | 0.1555 | 27 | 1.0630 | 55 | ○     |
| ADS-0396    | 3.96 | 0.1559 | 27 | 1.0630 | 55 | ○     |
| ADS-0397    | 3.97 | 0.1563 | 27 | 1.0630 | 55 | ○     |
| ADS-0398    | 3.98 | 0.1567 | 27 | 1.0630 | 55 | ○     |
| ADS-0399    | 3.99 | 0.1571 | 27 | 1.0630 | 55 | ○     |
| ADS-0400    | 4.00 | 0.1575 | 27 | 1.0630 | 55 | ○     |
| ADS-0401    | 4.01 | 0.1579 | 27 | 1.0630 | 55 | ○     |
| ADS-0402    | 4.02 | 0.1583 | 27 | 1.0630 | 55 | ○     |
| ADS-0403    | 4.03 | 0.1587 | 27 | 1.0630 | 55 | ○     |
| ADS-0404    | 4.04 | 0.1591 | 27 | 1.0630 | 55 | ○     |
| ADS-0405    | 4.05 | 0.1594 | 27 | 1.0630 | 55 | ○     |
| ADS-0406    | 4.06 | 0.1598 | 27 | 1.0630 | 55 | ○     |
| ADS-0407    | 4.07 | 0.1602 | 27 | 1.0630 | 55 | ○     |

| Product No. | ØD   |        | ℓ  |        | L  |       |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   | mm | Stock |
| ADS-0408    | 4.08 | 0.1606 | 27 | 1.0630 | 55 | ○     |
| ADS-0409    | 4.09 | 0.1610 | 27 | 1.0630 | 55 | ○     |
| ADS-0410    | 4.10 | 0.1614 | 30 | 1.1811 | 60 | ○     |
| ADS-0411    | 4.11 | 0.1618 | 30 | 1.1811 | 60 | ○     |
| ADS-0412    | 4.12 | 0.1622 | 30 | 1.1811 | 60 | ○     |
| ADS-0413    | 4.13 | 0.1626 | 30 | 1.1811 | 60 | ○     |
| ADS-0414    | 4.14 | 0.1630 | 30 | 1.1811 | 60 | ○     |
| ADS-0415    | 4.15 | 0.1634 | 30 | 1.1811 | 60 | ○     |
| ADS-0416    | 4.16 | 0.1638 | 30 | 1.1811 | 60 | ○     |
| ADS-0417    | 4.17 | 0.1642 | 30 | 1.1811 | 60 | ○     |
| ADS-0418    | 4.18 | 0.1646 | 30 | 1.1811 | 60 | ○     |
| ADS-0419    | 4.19 | 0.1650 | 30 | 1.1811 | 60 | ○     |
| ADS-0420    | 4.20 | 0.1654 | 30 | 1.1811 | 60 | ○     |
| ADS-0421    | 4.21 | 0.1657 | 30 | 1.1811 | 60 | ○     |
| ADS-0422    | 4.22 | 0.1661 | 30 | 1.1811 | 60 | ○     |
| ADS-0423    | 4.23 | 0.1665 | 30 | 1.1811 | 60 | ○     |
| ADS-0424    | 4.24 | 0.1669 | 30 | 1.1811 | 60 | ○     |
| ADS-0425    | 4.25 | 0.1673 | 30 | 1.1811 | 60 | ○     |
| ADS-0426    | 4.26 | 0.1677 | 30 | 1.1811 | 60 | ○     |
| ADS-0427    | 4.27 | 0.1681 | 30 | 1.1811 | 60 | ○     |
| ADS-0428    | 4.28 | 0.1685 | 30 | 1.1811 | 60 | ○     |
| ADS-0429    | 4.29 | 0.1689 | 30 | 1.1811 | 60 | ○     |
| ADS-0430    | 4.30 | 0.1693 | 30 | 1.1811 | 60 | ○     |
| ADS-0431    | 4.31 | 0.1697 | 30 | 1.1811 | 60 | ○     |
| ADS-0432    | 4.32 | 0.1701 | 30 | 1.1811 | 60 | ○     |
| ADS-0433    | 4.33 | 0.1705 | 30 | 1.1811 | 60 | ○     |
| ADS-0434    | 4.34 | 0.1709 | 30 | 1.1811 | 60 | ○     |
| ADS-0435    | 4.35 | 0.1713 | 30 | 1.1811 | 60 | ○     |
| ADS-0436    | 4.36 | 0.1717 | 30 | 1.1811 | 60 | ○     |
| ADS-0437    | 4.37 | 0.1720 | 30 | 1.1811 | 60 | ○     |
| ADS-0438    | 4.38 | 0.1724 | 30 | 1.1811 | 60 | ○     |
| ADS-0439    | 4.39 | 0.1728 | 30 | 1.1811 | 60 | ○     |
| ADS-0440    | 4.40 | 0.1732 | 30 | 1.1811 | 60 | ○     |
| ADS-0441    | 4.41 | 0.1736 | 30 | 1.1811 | 60 | ○     |
| ADS-0442    | 4.42 | 0.1740 | 30 | 1.1811 | 60 | ○     |
| ADS-0443    | 4.43 | 0.1744 | 30 | 1.1811 | 60 | ○     |
| ADS-0444    | 4.44 | 0.1748 | 30 | 1.1811 | 60 | ○     |
| ADS-0445    | 4.45 | 0.1752 | 30 | 1.1811 | 60 | ○     |
| ADS-0446    | 4.46 | 0.1756 | 30 | 1.1811 | 60 | ○     |
| ADS-0447    | 4.47 | 0.1760 | 30 | 1.1811 | 60 | ○     |
| ADS-0448    | 4.48 | 0.1764 | 30 | 1.1811 | 60 | ○     |
| ADS-0449    | 4.49 | 0.1768 | 30 | 1.1811 | 60 | ○     |

● US Stock Item ○ Japan Stock Item

# STRAIGHT SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |

⊙ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   |    |       |
| ADS-0450    | 4.50 | 0.1772 | 30 | 1.1811 | 60 | ○     |
| ADS-0451    | 4.51 | 0.1776 | 30 | 1.1811 | 60 | ○     |
| ADS-0452    | 4.52 | 0.1780 | 30 | 1.1811 | 60 | ○     |
| ADS-0453    | 4.53 | 0.1783 | 30 | 1.1811 | 60 | ○     |
| ADS-0454    | 4.54 | 0.1787 | 30 | 1.1811 | 60 | ○     |
| ADS-0455    | 4.55 | 0.1791 | 30 | 1.1811 | 60 | ○     |
| ADS-0456    | 4.56 | 0.1795 | 30 | 1.1811 | 60 | ○     |
| ADS-0457    | 4.57 | 0.1799 | 30 | 1.1811 | 60 | ○     |
| ADS-0458    | 4.58 | 0.1803 | 30 | 1.1811 | 60 | ○     |
| ADS-0459    | 4.59 | 0.1807 | 30 | 1.1811 | 60 | ○     |
| ADS-0460    | 4.60 | 0.1811 | 30 | 1.1811 | 60 | ○     |
| ADS-0461    | 4.61 | 0.1815 | 30 | 1.1811 | 60 | ○     |
| ADS-0462    | 4.62 | 0.1819 | 30 | 1.1811 | 60 | ○     |
| ADS-0463    | 4.63 | 0.1823 | 30 | 1.1811 | 60 | ○     |
| ADS-0464    | 4.64 | 0.1827 | 30 | 1.1811 | 60 | ○     |
| ADS-0465    | 4.65 | 0.1831 | 30 | 1.1811 | 60 | ○     |
| ADS-0466    | 4.66 | 0.1835 | 30 | 1.1811 | 60 | ○     |
| ADS-0467    | 4.67 | 0.1839 | 30 | 1.1811 | 60 | ○     |
| ADS-0468    | 4.68 | 0.1843 | 30 | 1.1811 | 60 | ○     |
| ADS-0469    | 4.69 | 0.1846 | 30 | 1.1811 | 60 | ○     |
| ADS-0470    | 4.70 | 0.1850 | 30 | 1.1811 | 60 | ○     |
| ADS-0471    | 4.71 | 0.1854 | 30 | 1.1811 | 60 | ○     |
| ADS-0472    | 4.72 | 0.1858 | 30 | 1.1811 | 60 | ○     |
| ADS-0473    | 4.73 | 0.1862 | 30 | 1.1811 | 60 | ○     |
| ADS-0474    | 4.74 | 0.1866 | 30 | 1.1811 | 60 | ○     |
| ADS-0475    | 4.75 | 0.1870 | 30 | 1.1811 | 60 | ○     |
| ADS-0476    | 4.76 | 0.1874 | 30 | 1.1811 | 60 | ○     |
| ADS-0477    | 4.77 | 0.1878 | 30 | 1.1811 | 60 | ○     |
| ADS-0478    | 4.78 | 0.1882 | 30 | 1.1811 | 60 | ○     |
| ADS-0479    | 4.79 | 0.1886 | 30 | 1.1811 | 60 | ○     |
| ADS-0480    | 4.80 | 0.1890 | 30 | 1.1811 | 60 | ○     |
| ADS-0481    | 4.81 | 0.1894 | 30 | 1.1811 | 60 | ○     |
| ADS-0482    | 4.82 | 0.1898 | 30 | 1.1811 | 60 | ○     |
| ADS-0483    | 4.83 | 0.1902 | 30 | 1.1811 | 60 | ○     |
| ADS-0484    | 4.84 | 0.1906 | 30 | 1.1811 | 60 | ○     |
| ADS-0485    | 4.85 | 0.1909 | 30 | 1.1811 | 60 | ○     |
| ADS-0486    | 4.86 | 0.1913 | 30 | 1.1811 | 60 | ○     |
| ADS-0487    | 4.87 | 0.1917 | 30 | 1.1811 | 60 | ○     |
| ADS-0488    | 4.88 | 0.1921 | 30 | 1.1811 | 60 | ○     |
| ADS-0489    | 4.89 | 0.1925 | 30 | 1.1811 | 60 | ○     |
| ADS-0490    | 4.90 | 0.1929 | 30 | 1.1811 | 60 | ○     |
| ADS-0491    | 4.91 | 0.1933 | 30 | 1.1811 | 60 | ○     |

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   |        |       |
| ADS-0492    | 4.92 | 0.1937 | 30 | 1.1811 | 60     | ○     |
| ADS-0493    | 4.93 | 0.1941 | 30 | 1.1811 | 60     | ○     |
| ADS-0494    | 4.94 | 0.1945 | 30 | 1.1811 | 60     | ○     |
| ADS-0495    | 4.95 | 0.1949 | 30 | 1.1811 | 60     | ○     |
| ADS-0496    | 4.96 | 0.1953 | 30 | 1.1811 | 60     | ○     |
| ADS-0497    | 4.97 | 0.1957 | 30 | 1.1811 | 60     | ○     |
| ADS-0498    | 4.98 | 0.1961 | 30 | 1.1811 | 60     | ○     |
| ADS-0499    | 4.99 | 0.1965 | 30 | 1.1811 | 60     | ○     |
| ADS-0500    | 5.00 | 0.1969 | 30 | 1.1811 | 60     | ○     |
| ADS-0501    | 5.01 | 0.1972 | 30 | 1.1811 | 60     | ○     |
| ADS-0502    | 5.02 | 0.1976 | 30 | 1.1811 | 60     | ○     |
| ADS-0503    | 5.03 | 0.1980 | 30 | 1.1811 | 60     | ○     |
| ADS-0504    | 5.04 | 0.1984 | 30 | 1.1811 | 60     | ○     |
| ADS-0505    | 5.05 | 0.1988 | 30 | 1.1811 | 60     | ○     |
| ADS-0506    | 5.06 | 0.1992 | 30 | 1.1811 | 60     | ○     |
| ADS-0507    | 5.07 | 0.1996 | 30 | 1.1811 | 60     | ○     |
| ADS-0508    | 5.08 | 0.2000 | 30 | 1.1811 | 60     | ○     |
| ADS-0509    | 5.09 | 0.2004 | 30 | 1.1811 | 60     | ○     |
| ADS-0510    | 5.10 | 0.2008 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0511    | 5.11 | 0.2012 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0512    | 5.12 | 0.2016 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0513    | 5.13 | 0.2020 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0514    | 5.14 | 0.2024 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0515    | 5.15 | 0.2028 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0516    | 5.16 | 0.2031 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0517    | 5.17 | 0.2035 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0518    | 5.18 | 0.2039 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0519    | 5.19 | 0.2043 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0520    | 5.20 | 0.2047 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0521    | 5.21 | 0.2051 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0522    | 5.22 | 0.2055 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0523    | 5.23 | 0.2059 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0524    | 5.24 | 0.2063 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0525    | 5.25 | 0.2067 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0526    | 5.26 | 0.2071 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0527    | 5.27 | 0.2075 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0528    | 5.28 | 0.2079 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0529    | 5.29 | 0.2083 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0530    | 5.30 | 0.2087 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0531    | 5.31 | 0.2091 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0532    | 5.32 | 0.2094 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0533    | 5.33 | 0.2098 | 40 | 1.5748 | 65(80) | ○     |

● US Stock Item ○ Japan Stock Item

\* Overall length is being changed to figures in parentheses.

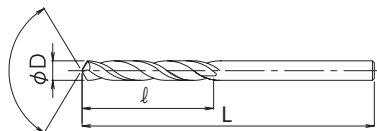
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Cutting Conditions P.135

# STRAIGHT SHANK DRILLS

## ADS (Cont.)

REGULAR, UNCOATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.01 mm (Ø0.X mm)  
+0/-0.005 mm (Ø0.0X mm)

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   | mm     |       |
| ADS-0534    | 5.34 | 0.2102 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0535    | 5.35 | 0.2106 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0536    | 5.36 | 0.2110 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0537    | 5.37 | 0.2114 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0538    | 5.38 | 0.2118 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0539    | 5.39 | 0.2122 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0540    | 5.40 | 0.2126 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0541    | 5.41 | 0.2130 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0542    | 5.42 | 0.2134 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0543    | 5.43 | 0.2138 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0544    | 5.44 | 0.2142 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0545    | 5.45 | 0.2146 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0546    | 5.46 | 0.2150 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0547    | 5.47 | 0.2154 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0548    | 5.48 | 0.2157 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0549    | 5.49 | 0.2161 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0550    | 5.50 | 0.2165 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0551    | 5.51 | 0.2169 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0552    | 5.52 | 0.2173 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0553    | 5.53 | 0.2177 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0554    | 5.54 | 0.2181 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0555    | 5.55 | 0.2185 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0556    | 5.56 | 0.2189 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0557    | 5.57 | 0.2193 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0558    | 5.58 | 0.2197 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0559    | 5.59 | 0.2201 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0560    | 5.60 | 0.2205 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0561    | 5.61 | 0.2209 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0562    | 5.62 | 0.2213 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0563    | 5.63 | 0.2217 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0564    | 5.64 | 0.2220 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0565    | 5.65 | 0.2224 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0566    | 5.66 | 0.2228 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0567    | 5.67 | 0.2232 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0568    | 5.68 | 0.2236 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0569    | 5.69 | 0.2240 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0570    | 5.70 | 0.2244 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0571    | 5.71 | 0.2248 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0572    | 5.72 | 0.2252 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0573    | 5.73 | 0.2256 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0574    | 5.74 | 0.2260 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0575    | 5.75 | 0.2264 | 40 | 1.5748 | 65(80) | ○     |

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   | mm     |       |
| ADS-0576    | 5.76 | 0.2268 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0577    | 5.77 | 0.2272 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0578    | 5.78 | 0.2276 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0579    | 5.79 | 0.2280 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0580    | 5.80 | 0.2283 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0581    | 5.81 | 0.2287 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0582    | 5.82 | 0.2291 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0583    | 5.83 | 0.2295 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0584    | 5.84 | 0.2299 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0585    | 5.85 | 0.2303 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0586    | 5.86 | 0.2307 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0587    | 5.87 | 0.2311 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0588    | 5.88 | 0.2315 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0589    | 5.89 | 0.2319 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0590    | 5.90 | 0.2323 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0591    | 5.91 | 0.2327 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0592    | 5.92 | 0.2331 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0593    | 5.93 | 0.2335 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0594    | 5.94 | 0.2339 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0595    | 5.95 | 0.2343 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0596    | 5.96 | 0.2346 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0597    | 5.97 | 0.2350 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0598    | 5.98 | 0.2354 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0599    | 5.99 | 0.2358 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0600    | 6.00 | 0.2362 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0601    | 6.01 | 0.2366 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0602    | 6.02 | 0.2370 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0603    | 6.03 | 0.2374 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0604    | 6.04 | 0.2378 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0605    | 6.05 | 0.2382 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0606    | 6.06 | 0.2386 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0607    | 6.07 | 0.2390 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0608    | 6.08 | 0.2394 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0609    | 6.09 | 0.2398 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0610    | 6.10 | 0.2402 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0615    | 6.15 | 0.2421 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0620    | 6.20 | 0.2441 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0625    | 6.25 | 0.2461 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0630    | 6.30 | 0.2480 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0635    | 6.35 | 0.2500 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0640    | 6.40 | 0.2520 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0645    | 6.45 | 0.2539 | 40 | 1.5748 | 65(80) | ○     |

● US Stock Item ○ Japan Stock Item

\* Overall length is being changed to figures in parentheses.

# STRAIGHT SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |

⊙ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   | mm     |       |
| ADS-0650    | 6.50 | 0.2559 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0655    | 6.55 | 0.2579 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0660    | 6.60 | 0.2598 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0665    | 6.65 | 0.2618 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0670    | 6.70 | 0.2638 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0675    | 6.75 | 0.2657 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0680    | 6.80 | 0.2677 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0685    | 6.85 | 0.2697 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0690    | 6.90 | 0.2717 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0695    | 6.95 | 0.2736 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0700    | 7.00 | 0.2756 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0701    | 7.01 | 0.2760 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0702    | 7.02 | 0.2764 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0703    | 7.03 | 0.2768 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0704    | 7.04 | 0.2772 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0705    | 7.05 | 0.2776 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0706    | 7.06 | 0.2780 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0707    | 7.07 | 0.2783 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0708    | 7.08 | 0.2787 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0709    | 7.09 | 0.2791 | 40 | 1.5748 | 65(80) | ○     |
| ADS-0710    | 7.10 | 0.2795 | 40 | 1.5748 | 80     | ○     |
| ADS-0720    | 7.20 | 0.2835 | 40 | 1.5748 | 80     | ○     |
| ADS-0730    | 7.30 | 0.2874 | 40 | 1.5748 | 80     | ○     |
| ADS-0740    | 7.40 | 0.2913 | 40 | 1.5748 | 80     | ○     |
| ADS-0750    | 7.50 | 0.2953 | 40 | 1.5748 | 80     | ○     |
| ADS-0760    | 7.60 | 0.2992 | 40 | 1.5748 | 80     | ○     |
| ADS-0770    | 7.70 | 0.3031 | 40 | 1.5748 | 80     | ○     |
| ADS-0780    | 7.80 | 0.3071 | 40 | 1.5748 | 80     | ○     |
| ADS-0790    | 7.90 | 0.3110 | 40 | 1.5748 | 80     | ○     |
| ADS-0800    | 8.00 | 0.3150 | 40 | 1.5748 | 80     | ○     |
| ADS-0801    | 8.01 | 0.3154 | 40 | 1.5748 | 80     | ○     |
| ADS-0802    | 8.02 | 0.3157 | 40 | 1.5748 | 80     | ○     |
| ADS-0803    | 8.03 | 0.3161 | 40 | 1.5748 | 80     | ○     |
| ADS-0804    | 8.04 | 0.3165 | 40 | 1.5748 | 80     | ○     |
| ADS-0805    | 8.05 | 0.3169 | 40 | 1.5748 | 80     | ○     |
| ADS-0806    | 8.06 | 0.3173 | 40 | 1.5748 | 80     | ○     |
| ADS-0807    | 8.07 | 0.3177 | 40 | 1.5748 | 80     | ○     |
| ADS-0808    | 8.08 | 0.3181 | 40 | 1.5748 | 80     | ○     |
| ADS-0809    | 8.09 | 0.3185 | 40 | 1.5748 | 80     | ○     |
| ADS-0810    | 8.10 | 0.3189 | 40 | 1.5748 | 80     | ○     |
| ADS-0820    | 8.20 | 0.3228 | 40 | 1.5748 | 80     | ○     |
| ADS-0830    | 8.30 | 0.3268 | 40 | 1.5748 | 80     | ○     |

| Product No. | ØD    |        | ℓ  |        | L   | Stock |
|-------------|-------|--------|----|--------|-----|-------|
|             | mm    | inch   | mm | inch   | mm  |       |
| ADS-0840    | 8.40  | 0.3307 | 40 | 1.5748 | 80  | ○     |
| ADS-0850    | 8.50  | 0.3346 | 40 | 1.5748 | 80  | ○     |
| ADS-0860    | 8.60  | 0.3386 | 40 | 1.5748 | 80  | ○     |
| ADS-0870    | 8.70  | 0.3425 | 40 | 1.5748 | 80  | ○     |
| ADS-0880    | 8.80  | 0.3465 | 40 | 1.5748 | 80  | ○     |
| ADS-0890    | 8.90  | 0.3504 | 40 | 1.5748 | 80  | ○     |
| ADS-0900    | 9.00  | 0.3543 | 40 | 1.5748 | 80  | ○     |
| ADS-0901    | 9.01  | 0.3547 | 40 | 1.5748 | 80  | ○     |
| ADS-0902    | 9.02  | 0.3551 | 40 | 1.5748 | 80  | ○     |
| ADS-0903    | 9.03  | 0.3555 | 40 | 1.5748 | 80  | ○     |
| ADS-0904    | 9.04  | 0.3559 | 40 | 1.5748 | 80  | ○     |
| ADS-0905    | 9.05  | 0.3563 | 40 | 1.5748 | 80  | ○     |
| ADS-0906    | 9.06  | 0.3567 | 40 | 1.5748 | 80  | ○     |
| ADS-0907    | 9.07  | 0.3571 | 40 | 1.5748 | 80  | ○     |
| ADS-0908    | 9.08  | 0.3575 | 40 | 1.5748 | 80  | ○     |
| ADS-0909    | 9.09  | 0.3579 | 40 | 1.5748 | 80  | ○     |
| ADS-0910    | 9.10  | 0.3583 | 40 | 1.5748 | 80  | ○     |
| ADS-0920    | 9.20  | 0.3622 | 40 | 1.5748 | 80  | ○     |
| ADS-0930    | 9.30  | 0.3661 | 40 | 1.5748 | 80  | ○     |
| ADS-0940    | 9.40  | 0.3701 | 40 | 1.5748 | 80  | ○     |
| ADS-0950    | 9.50  | 0.3740 | 40 | 1.5748 | 80  | ○     |
| ADS-0960    | 9.60  | 0.3780 | 50 | 1.9685 | 100 | ○     |
| ADS-0970    | 9.70  | 0.3819 | 50 | 1.9685 | 100 | ○     |
| ADS-0980    | 9.80  | 0.3858 | 50 | 1.9685 | 100 | ○     |
| ADS-0990    | 9.90  | 0.3898 | 50 | 1.9685 | 100 | ○     |
| ADS-1000    | 10.00 | 0.3937 | 50 | 1.9685 | 100 | ○     |
| ADS-1001    | 10.01 | 0.3941 | 50 | 1.9685 | 100 | ○     |
| ADS-1002    | 10.02 | 0.3945 | 50 | 1.9685 | 100 | ○     |
| ADS-1003    | 10.03 | 0.3949 | 50 | 1.9685 | 100 | ○     |
| ADS-1004    | 10.04 | 0.3953 | 50 | 1.9685 | 100 | ○     |
| ADS-1005    | 10.05 | 0.3957 | 50 | 1.9685 | 100 | ○     |
| ADS-1006    | 10.06 | 0.3961 | 50 | 1.9685 | 100 | ○     |
| ADS-1007    | 10.07 | 0.3965 | 50 | 1.9685 | 100 | ○     |
| ADS-1008    | 10.08 | 0.3969 | 50 | 1.9685 | 100 | ○     |
| ADS-1009    | 10.09 | 0.3972 | 50 | 1.9685 | 100 | ○     |
| ADS-1010    | 10.10 | 0.3976 | 50 | 1.9685 | 100 | ○     |
| ADS-1020    | 10.20 | 0.4016 | 50 | 1.9685 | 100 | ○     |
| ADS-1030    | 10.30 | 0.4055 | 50 | 1.9685 | 100 | ○     |
| ADS-1040    | 10.40 | 0.4094 | 50 | 1.9685 | 100 | ○     |
| ADS-1050    | 10.50 | 0.4134 | 50 | 1.9685 | 100 | ○     |
| ADS-1060    | 10.60 | 0.4173 | 50 | 1.9685 | 100 | ○     |
| ADS-1070    | 10.70 | 0.4213 | 50 | 1.9685 | 100 | ○     |

● US Stock Item ○ Japan Stock Item

\* Overall length is being changed to figures in parentheses.

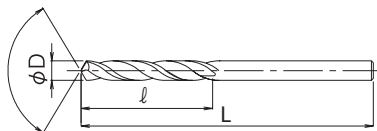
Next Page ▶

Cutting Conditions P.135

# STRAIGHT SHANK DRILLS

## ADS(Cont.)

REGULAR, UNCOATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0 / -0.01 mm (Ø0.X mm)  
+0 / -0.005 mm (Ø0.0X mm)

| Product No. | ØD    |        | ℓ  |        | L   | Stock |
|-------------|-------|--------|----|--------|-----|-------|
|             | mm    | inch   | mm | inch   | mm  |       |
| ADS-1080    | 10.80 | 0.4252 | 50 | 1.9685 | 100 | ○     |
| ADS-1090    | 10.90 | 0.4291 | 50 | 1.9685 | 100 | ○     |
| ADS-1100    | 11.00 | 0.4331 | 50 | 1.9685 | 100 | ○     |
| ADS-1101    | 11.01 | 0.4335 | 50 | 1.9685 | 100 | ○     |
| ADS-1102    | 11.02 | 0.4339 | 50 | 1.9685 | 100 | ○     |
| ADS-1103    | 11.03 | 0.4343 | 50 | 1.9685 | 100 | ○     |
| ADS-1104    | 11.04 | 0.4346 | 50 | 1.9685 | 100 | ○     |
| ADS-1105    | 11.05 | 0.4350 | 50 | 1.9685 | 100 | ○     |
| ADS-1106    | 11.06 | 0.4354 | 50 | 1.9685 | 100 | ○     |
| ADS-1107    | 11.07 | 0.4358 | 50 | 1.9685 | 100 | ○     |
| ADS-1108    | 11.08 | 0.4362 | 50 | 1.9685 | 100 | ○     |
| ADS-1109    | 11.09 | 0.4366 | 50 | 1.9685 | 100 | ○     |
| ADS-1110    | 11.10 | 0.4370 | 50 | 1.9685 | 100 | ○     |
| ADS-1120    | 11.20 | 0.4409 | 50 | 1.9685 | 100 | ○     |
| ADS-1130    | 11.30 | 0.4449 | 50 | 1.9685 | 100 | ○     |
| ADS-1140    | 11.40 | 0.4488 | 50 | 1.9685 | 100 | ○     |
| ADS-1150    | 11.50 | 0.4528 | 50 | 1.9685 | 100 | ○     |
| ADS-1160    | 11.60 | 0.4567 | 50 | 1.9685 | 100 | ○     |
| ADS-1170    | 11.70 | 0.4606 | 50 | 1.9685 | 100 | ○     |
| ADS-1180    | 11.80 | 0.4646 | 50 | 1.9685 | 100 | ○     |
| ADS-1190    | 11.90 | 0.4685 | 50 | 1.9685 | 100 | ○     |
| ADS-1200    | 12.00 | 0.4724 | 50 | 1.9685 | 100 | ○     |

| Product No. | ØD    |        | ℓ  |        | L   | Stock |
|-------------|-------|--------|----|--------|-----|-------|
|             | mm    | inch   | mm | inch   | mm  |       |
| ADS-1201    | 12.01 | 0.4728 | 50 | 1.9685 | 100 | ○     |
| ADS-1202    | 12.02 | 0.4732 | 50 | 1.9685 | 100 | ○     |
| ADS-1203    | 12.03 | 0.4736 | 50 | 1.9685 | 100 | ○     |
| ADS-1204    | 12.04 | 0.4740 | 50 | 1.9685 | 100 | ○     |
| ADS-1205    | 12.05 | 0.4744 | 50 | 1.9685 | 100 | ○     |
| ADS-1206    | 12.06 | 0.4748 | 50 | 1.9685 | 100 | ○     |
| ADS-1207    | 12.07 | 0.4752 | 50 | 1.9685 | 100 | ○     |
| ADS-1208    | 12.08 | 0.4756 | 50 | 1.9685 | 100 | ○     |
| ADS-1209    | 12.09 | 0.4760 | 50 | 1.9685 | 100 | ○     |
| ADS-1210    | 12.10 | 0.4764 | 50 | 1.9685 | 100 | ○     |
| ADS-1220    | 12.20 | 0.4803 | 50 | 1.9685 | 100 | ○     |
| ADS-1230    | 12.30 | 0.4843 | 50 | 1.9685 | 100 | ○     |
| ADS-1240    | 12.40 | 0.4882 | 50 | 1.9685 | 100 | ○     |
| ADS-1250    | 12.50 | 0.4921 | 50 | 1.9685 | 100 | ○     |
| ADS-1260    | 12.60 | 0.4961 | 50 | 1.9685 | 100 | ○     |
| ADS-1270    | 12.70 | 0.5000 | 50 | 1.9685 | 100 | ○     |
| ADS-1280    | 12.80 | 0.5039 | 50 | 1.9685 | 100 | ○     |
| ADS-1290    | 12.90 | 0.5079 | 50 | 1.9685 | 100 | ○     |
| ADS-1300    | 13.00 | 0.5118 | 50 | 1.9685 | 100 | ○     |

● US Stock Item ○ Japan Stock Item

STRAIGHT SHANK DRILLS

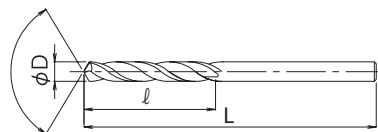
| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |

⊙ Best   ○ Good   △ OK

# STRAIGHT SHANK DRILLS

# ADSL

SEMI LONG, UNCOATED, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0 / -0.01 mm

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   | mm     |       |
| ADSL-0030   | 0.30 | 0.0118 | 8  | 0.3150 | 40     | ●     |
| ADSL-0035   | 0.35 | 0.0138 | 8  | 0.3150 | 40     | ●     |
| ADSL-0040   | 0.40 | 0.0157 | 8  | 0.3150 | 40     | ●     |
| ADSL-0045   | 0.45 | 0.0177 | 8  | 0.3150 | 40     | ●     |
| ADSL-0050   | 0.50 | 0.0197 | 8  | 0.3150 | 40     | ●     |
| ADSL-0055   | 0.55 | 0.0217 | 8  | 0.3150 | 40     | ●     |
| ADSL-0060   | 0.60 | 0.0236 | 8  | 0.3150 | 40     | ●     |
| ADSL-0065   | 0.65 | 0.0256 | 8  | 0.3150 | 40     | ●     |
| ADSL-0070   | 0.70 | 0.0276 | 15 | 0.5906 | 50     | ●     |
| ADSL-0075   | 0.75 | 0.0295 | 15 | 0.5906 | 50     | ●     |
| ADSL-0080   | 0.80 | 0.0315 | 15 | 0.5906 | 50     | ●     |
| ADSL-0085   | 0.85 | 0.0335 | 15 | 0.5906 | 50     | ●     |
| ADSL-0090   | 0.90 | 0.0354 | 15 | 0.5906 | 50     | ●     |
| ADSL-0095   | 0.95 | 0.0374 | 15 | 0.5906 | 50     | ●     |
| ADSL-0100   | 1.00 | 0.0394 | 16 | 0.6299 | 50     | ●     |
| ADSL-0105   | 1.05 | 0.0413 | 16 | 0.6299 | 50     | ●     |
| ADSL-0110   | 1.10 | 0.0433 | 16 | 0.6299 | 50     | ●     |
| ADSL-0115   | 1.15 | 0.0453 | 16 | 0.6299 | 50     | ●     |
| ADSL-0120   | 1.20 | 0.0472 | 18 | 0.7087 | 50     | ●     |
| ADSL-0125   | 1.25 | 0.0492 | 18 | 0.7087 | 50     | ●     |
| ADSL-0130   | 1.30 | 0.0512 | 18 | 0.7087 | 50     | ●     |
| ADSL-0135   | 1.35 | 0.0531 | 18 | 0.7087 | 50     | ●     |
| ADSL-0140   | 1.40 | 0.0551 | 18 | 0.7087 | 50     | ●     |
| ADSL-0145   | 1.45 | 0.0571 | 18 | 0.7087 | 50     | ●     |
| ADSL-0150   | 1.50 | 0.0591 | 24 | 0.9449 | 50     | ●     |
| ADSL-0155   | 1.55 | 0.0610 | 24 | 0.9449 | 50     | ●     |
| ADSL-0160   | 1.60 | 0.0630 | 24 | 0.9449 | 55     | ●     |
| ADSL-0165   | 1.65 | 0.0650 | 24 | 0.9449 | 55     | ●     |
| ADSL-0170   | 1.70 | 0.0669 | 24 | 0.9449 | 55     | ●     |
| ADSL-0175   | 1.75 | 0.0689 | 24 | 0.9449 | 55     | ●     |
| ADSL-0180   | 1.80 | 0.0709 | 24 | 0.9449 | 55     | ●     |
| ADSL-0185   | 1.85 | 0.0728 | 24 | 0.9449 | 55     | ●     |
| ADSL-0190   | 1.90 | 0.0748 | 24 | 0.9449 | 55     | ●     |
| ADSL-0195   | 1.95 | 0.0768 | 24 | 0.9449 | 55     | ●     |
| ADSL-0200   | 2.00 | 0.0787 | 24 | 0.9449 | 55     | ●     |
| ADSL-0205   | 2.05 | 0.0807 | 24 | 0.9449 | 55     | ●     |
| ADSL-0210   | 2.10 | 0.0827 | 24 | 0.9449 | 55     | ●     |
| ADSL-0215   | 2.15 | 0.0846 | 24 | 0.9449 | 55     | ●     |
| ADSL-0220   | 2.20 | 0.0866 | 26 | 1.0236 | 58(65) | ●     |
| ADSL-0225   | 2.25 | 0.0886 | 26 | 1.0236 | 58(65) | ●     |
| ADSL-0230   | 2.30 | 0.0906 | 26 | 1.0236 | 58(65) | ●     |
| ADSL-0235   | 2.35 | 0.0925 | 26 | 1.0236 | 58(65) | ●     |

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   | mm     |       |
| ADSL-0240   | 2.40 | 0.0945 | 26 | 1.0236 | 61(65) | ●     |
| ADSL-0245   | 2.45 | 0.0965 | 26 | 1.0236 | 61(65) | ●     |
| ADSL-0250   | 2.50 | 0.0984 | 26 | 1.0236 | 61(65) | ●     |
| ADSL-0255   | 2.55 | 0.1004 | 26 | 1.0236 | 61(65) | ●     |
| ADSL-0260   | 2.60 | 0.1024 | 28 | 1.1024 | 64(65) | ●     |
| ADSL-0265   | 2.65 | 0.1043 | 28 | 1.1024 | 64(65) | ●     |
| ADSL-0270   | 2.70 | 0.1063 | 28 | 1.1024 | 64(65) | ●     |
| ADSL-0275   | 2.75 | 0.1083 | 28 | 1.1024 | 64(65) | ●     |
| ADSL-0280   | 2.80 | 0.1102 | 30 | 1.1811 | 67(75) | ●     |
| ADSL-0285   | 2.85 | 0.1122 | 30 | 1.1811 | 67(75) | ●     |
| ADSL-0290   | 2.90 | 0.1142 | 30 | 1.1811 | 71(75) | ●     |
| ADSL-0295   | 2.95 | 0.1161 | 30 | 1.1811 | 71(75) | ●     |
| ADSL-0300   | 3.00 | 0.1181 | 30 | 1.1811 | 71(75) | ●     |
| ADSL-0305   | 3.05 | 0.1201 | 30 | 1.1811 | 71(75) | ○     |
| ADSL-0310   | 3.10 | 0.1220 | 32 | 1.2598 | 71(75) | ○     |
| ADSL-0315   | 3.15 | 0.1240 | 32 | 1.2598 | 71(75) | ○     |
| ADSL-0320   | 3.20 | 0.1260 | 32 | 1.2598 | 71(75) | ○     |
| ADSL-0325   | 3.25 | 0.1280 | 32 | 1.2598 | 71(75) | ○     |
| ADSL-0330   | 3.30 | 0.1299 | 35 | 1.3780 | 73(75) | ○     |
| ADSL-0335   | 3.35 | 0.1319 | 35 | 1.3780 | 73(75) | ○     |
| ADSL-0340   | 3.40 | 0.1339 | 35 | 1.3780 | 73(75) | ○     |
| ADSL-0345   | 3.45 | 0.1358 | 35 | 1.3780 | 73(75) | ○     |
| ADSL-0350   | 3.50 | 0.1378 | 35 | 1.3780 | 73(75) | ○     |
| ADSL-0355   | 3.55 | 0.1398 | 35 | 1.3780 | 73(75) | ○     |
| ADSL-0360   | 3.60 | 0.1417 | 37 | 1.4567 | 76(80) | ○     |
| ADSL-0365   | 3.65 | 0.1437 | 37 | 1.4567 | 76(80) | ○     |
| ADSL-0370   | 3.70 | 0.1457 | 37 | 1.4567 | 76(80) | ○     |
| ADSL-0375   | 3.75 | 0.1476 | 37 | 1.4567 | 76(80) | ○     |
| ADSL-0380   | 3.80 | 0.1496 | 37 | 1.4567 | 76(80) | ○     |
| ADSL-0385   | 3.85 | 0.1516 | 37 | 1.4567 | 76(80) | ○     |
| ADSL-0390   | 3.90 | 0.1535 | 37 | 1.4567 | 79(80) | ○     |
| ADSL-0395   | 3.95 | 0.1555 | 37 | 1.4567 | 79(80) | ○     |
| ADSL-0400   | 4.00 | 0.1575 | 40 | 1.5748 | 83(90) | ○     |
| ADSL-0405   | 4.05 | 0.1594 | 40 | 1.5748 | 83(90) | ○     |
| ADSL-0410   | 4.10 | 0.1614 | 40 | 1.5748 | 83(90) | ○     |
| ADSL-0415   | 4.15 | 0.1634 | 40 | 1.5748 | 83(90) | ○     |
| ADSL-0420   | 4.20 | 0.1654 | 40 | 1.5748 | 83(90) | ○     |
| ADSL-0425   | 4.25 | 0.1673 | 40 | 1.5748 | 83(90) | ○     |
| ADSL-0430   | 4.30 | 0.1693 | 40 | 1.5748 | 83(90) | ○     |
| ADSL-0435   | 4.35 | 0.1713 | 40 | 1.5748 | 83(90) | ○     |
| ADSL-0440   | 4.40 | 0.1732 | 42 | 1.6535 | 86(90) | ○     |
| ADSL-0445   | 4.45 | 0.1752 | 42 | 1.6535 | 86(90) | ○     |

● US Stock Item ○ Japan Stock Item

\* Overall length is being changed to figures in parentheses.

# STRAIGHT SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |

⊙ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L        | Stock |
|-------------|------|--------|----|--------|----------|-------|
|             | mm   | inch   | mm | inch   |          |       |
| ADSL-0450   | 4.50 | 0.1772 | 42 | 1.6535 | 86(90)   | ○     |
| ADSL-0455   | 4.55 | 0.1791 | 42 | 1.6535 | 86(90)   | ○     |
| ADSL-0460   | 4.60 | 0.1811 | 42 | 1.6535 | 86(90)   | ○     |
| ADSL-0465   | 4.65 | 0.1831 | 42 | 1.6535 | 86(90)   | ○     |
| ADSL-0470   | 4.70 | 0.1850 | 42 | 1.6535 | 89(90)   | ○     |
| ADSL-0475   | 4.75 | 0.1870 | 42 | 1.6535 | 89(90)   | ○     |
| ADSL-0480   | 4.80 | 0.1890 | 42 | 1.6535 | 89(90)   | ○     |
| ADSL-0485   | 4.85 | 0.1909 | 42 | 1.6535 | 89(90)   | ○     |
| ADSL-0490   | 4.90 | 0.1929 | 45 | 1.7717 | 92(100)  | ○     |
| ADSL-0495   | 4.95 | 0.1949 | 45 | 1.7717 | 92(100)  | ○     |
| ADSL-0500   | 5.00 | 0.1969 | 45 | 1.7717 | 92(100)  | ○     |
| ADSL-0505   | 5.05 | 0.1988 | 45 | 1.7717 | 92(100)  | ○     |
| ADSL-0510   | 5.10 | 0.2008 | 45 | 1.7717 | 92(100)  | ○     |
| ADSL-0515   | 5.15 | 0.2028 | 45 | 1.7717 | 92(100)  | ○     |
| ADSL-0520   | 5.20 | 0.2047 | 45 | 1.7717 | 95(100)  | ○     |
| ADSL-0525   | 5.25 | 0.2067 | 45 | 1.7717 | 95(100)  | ○     |
| ADSL-0530   | 5.30 | 0.2087 | 45 | 1.7717 | 95(100)  | ○     |
| ADSL-0535   | 5.35 | 0.2106 | 45 | 1.7717 | 95(100)  | ○     |
| ADSL-0540   | 5.40 | 0.2126 | 45 | 1.7717 | 95(100)  | ○     |
| ADSL-0545   | 5.45 | 0.2146 | 45 | 1.7717 | 95(100)  | ○     |
| ADSL-0550   | 5.50 | 0.2165 | 45 | 1.7717 | 95(100)  | ○     |
| ADSL-0555   | 5.55 | 0.2185 | 45 | 1.7717 | 95(100)  | ○     |
| ADSL-0560   | 5.60 | 0.2205 | 45 | 1.7717 | 98(100)  | ○     |
| ADSL-0565   | 5.65 | 0.2224 | 45 | 1.7717 | 98(100)  | ○     |
| ADSL-0570   | 5.70 | 0.2244 | 45 | 1.7717 | 98(100)  | ○     |
| ADSL-0575   | 5.75 | 0.2264 | 45 | 1.7717 | 98(100)  | ○     |
| ADSL-0580   | 5.80 | 0.2283 | 45 | 1.7717 | 98(100)  | ○     |
| ADSL-0585   | 5.85 | 0.2303 | 45 | 1.7717 | 98(100)  | ○     |
| ADSL-0590   | 5.90 | 0.2323 | 45 | 1.7717 | 98(100)  | ○     |
| ADSL-0595   | 5.95 | 0.2343 | 45 | 1.7717 | 98(100)  | ○     |
| ADSL-0600   | 6.00 | 0.2362 | 50 | 1.9685 | 102(110) | ○     |
| ADSL-0610   | 6.10 | 0.2402 | 50 | 1.9685 | 102(110) | ○     |
| ADSL-0620   | 6.20 | 0.2441 | 50 | 1.9685 | 102(110) | ○     |
| ADSL-0630   | 6.30 | 0.2480 | 50 | 1.9685 | 102(110) | ○     |
| ADSL-0640   | 6.40 | 0.2520 | 50 | 1.9685 | 105(110) | ○     |
| ADSL-0650   | 6.50 | 0.2559 | 50 | 1.9685 | 105(110) | ○     |
| ADSL-0660   | 6.60 | 0.2598 | 50 | 1.9685 | 105(110) | ○     |
| ADSL-0670   | 6.70 | 0.2638 | 50 | 1.9685 | 105(110) | ○     |
| ADSL-0680   | 6.80 | 0.2677 | 50 | 1.9685 | 105(110) | ○     |
| ADSL-0690   | 6.90 | 0.2717 | 50 | 1.9685 | 105(110) | ○     |

● US Stock Item ○ Japan Stock Item

\* Overall length is being changed to figures in parentheses.

| Product No. | ØD    |        | ℓ  |        | L        | Stock |
|-------------|-------|--------|----|--------|----------|-------|
|             | mm    | inch   | mm | inch   |          |       |
| ADSL-0700   | 7.00  | 0.2756 | 50 | 1.9685 | 105(110) | ○     |
| ADSL-0710   | 7.10  | 0.2795 | 52 | 2.0472 | 108(110) | ○     |
| ADSL-0720   | 7.20  | 0.2835 | 52 | 2.0472 | 108(110) | ○     |
| ADSL-0730   | 7.30  | 0.2874 | 52 | 2.0472 | 108(110) | ○     |
| ADSL-0740   | 7.40  | 0.2913 | 52 | 2.0472 | 111(120) | ○     |
| ADSL-0750   | 7.50  | 0.2953 | 52 | 2.0472 | 111(120) | ○     |
| ADSL-0760   | 7.60  | 0.2992 | 52 | 2.0472 | 111(120) | ○     |
| ADSL-0770   | 7.70  | 0.3031 | 55 | 2.1654 | 114(120) | ○     |
| ADSL-0780   | 7.80  | 0.3071 | 55 | 2.1654 | 114(120) | ○     |
| ADSL-0790   | 7.90  | 0.3110 | 55 | 2.1654 | 114(120) | ○     |
| ADSL-0800   | 8.00  | 0.3150 | 60 | 2.3622 | 117(120) | ○     |
| ADSL-0810   | 8.10  | 0.3189 | 60 | 2.3622 | 117(120) | ○     |
| ADSL-0820   | 8.20  | 0.3228 | 60 | 2.3622 | 117(120) | ○     |
| ADSL-0830   | 8.30  | 0.3268 | 60 | 2.3622 | 117(120) | ○     |
| ADSL-0840   | 8.40  | 0.3307 | 60 | 2.3622 | 121(130) | ○     |
| ADSL-0850   | 8.50  | 0.3346 | 60 | 2.3622 | 121(130) | ○     |
| ADSL-0860   | 8.60  | 0.3386 | 65 | 2.5591 | 121(130) | ○     |
| ADSL-0870   | 8.70  | 0.3425 | 65 | 2.5591 | 121(130) | ○     |
| ADSL-0880   | 8.80  | 0.3465 | 65 | 2.5591 | 124(130) | ○     |
| ADSL-0890   | 8.90  | 0.3504 | 65 | 2.5591 | 124(130) | ○     |
| ADSL-0900   | 9.00  | 0.3543 | 65 | 2.5591 | 124(130) | ○     |
| ADSL-0910   | 9.10  | 0.3583 | 65 | 2.5591 | 124(130) | ○     |
| ADSL-0920   | 9.20  | 0.3622 | 65 | 2.5591 | 127(130) | ○     |
| ADSL-0930   | 9.30  | 0.3661 | 65 | 2.5591 | 127(130) | ○     |
| ADSL-0940   | 9.40  | 0.3701 | 65 | 2.5591 | 127(130) | ○     |
| ADSL-0950   | 9.50  | 0.3740 | 65 | 2.5591 | 127(130) | ○     |
| ADSL-0960   | 9.60  | 0.3780 | 65 | 2.5591 | 130      | ○     |
| ADSL-0970   | 9.70  | 0.3819 | 65 | 2.5591 | 130      | ○     |
| ADSL-0980   | 9.80  | 0.3858 | 65 | 2.5591 | 130      | ○     |
| ADSL-0990   | 9.90  | 0.3898 | 65 | 2.5591 | 130      | ○     |
| ADSL-1000   | 10.00 | 0.3937 | 70 | 2.7559 | 130      | ○     |
| ADSL-1050   | 10.50 | 0.4134 | 70 | 2.7559 | 137(150) | ○     |
| ADSL-1100   | 11.00 | 0.4331 | 70 | 2.7559 | 140(150) | ○     |
| ADSL-1150   | 11.50 | 0.4528 | 70 | 2.7559 | 143(150) | ○     |
| ADSL-1200   | 12.00 | 0.4724 | 70 | 2.7559 | 149(150) | ○     |
| ADSL-1250   | 12.50 | 0.4921 | 70 | 2.7559 | 149(150) | ○     |
| ADSL-1300   | 13.00 | 0.5118 | 70 | 2.7559 | 149(150) | ○     |



# STRAIGHT SHANK DRILLS

# ADL

LONG, UNCOATED, FOR DEEP DRILLING



ØD Tolerance:  
+0/-0.01 mm

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   | mm |       |
| ADL-0030    | 0.30 | 0.0118 | 10 | 0.3937 | 60 | ●     |
| ADL-0035    | 0.35 | 0.0138 | 10 | 0.3937 | 60 | ●     |
| ADL-0040    | 0.40 | 0.0157 | 10 | 0.3937 | 60 | ●     |
| ADL-0045    | 0.45 | 0.0177 | 10 | 0.3937 | 60 | ●     |
| ADL-0050    | 0.50 | 0.0197 | 10 | 0.3937 | 60 | ●     |
| ADL-0055    | 0.55 | 0.0217 | 15 | 0.5906 | 65 | ●     |
| ADL-0060    | 0.60 | 0.0236 | 15 | 0.5906 | 65 | ●     |
| ADL-0065    | 0.65 | 0.0256 | 15 | 0.5906 | 65 | ●     |
| ADL-0070    | 0.70 | 0.0276 | 15 | 0.5906 | 65 | ●     |
| ADL-0075    | 0.75 | 0.0295 | 15 | 0.5906 | 65 | ●     |
| ADL-0080    | 0.80 | 0.0315 | 20 | 0.7874 | 75 | ●     |
| ADL-0085    | 0.85 | 0.0335 | 20 | 0.7874 | 75 | ●     |
| ADL-0090    | 0.90 | 0.0354 | 20 | 0.7874 | 75 | ●     |
| ADL-0095    | 0.95 | 0.0374 | 20 | 0.7874 | 75 | ●     |
| ADL-0100    | 1.00 | 0.0394 | 25 | 0.9843 | 75 | ●     |
| ADL-0105    | 1.05 | 0.0413 | 25 | 0.9843 | 75 | ●     |
| ADL-0110    | 1.10 | 0.0433 | 25 | 0.9843 | 75 | ●     |
| ADL-0115    | 1.15 | 0.0453 | 25 | 0.9843 | 75 | ●     |
| ADL-0120    | 1.20 | 0.0472 | 25 | 0.9843 | 75 | ●     |
| ADL-0125    | 1.25 | 0.0492 | 25 | 0.9843 | 75 | ●     |
| ADL-0130    | 1.30 | 0.0512 | 25 | 0.9843 | 75 | ●     |
| ADL-0135    | 1.35 | 0.0531 | 25 | 0.9843 | 75 | ●     |
| ADL-0140    | 1.40 | 0.0551 | 30 | 1.1811 | 75 | ●     |
| ADL-0145    | 1.45 | 0.0571 | 30 | 1.1811 | 75 | ●     |
| ADL-0150    | 1.50 | 0.0591 | 30 | 1.1811 | 75 | ●     |
| ADL-0155    | 1.55 | 0.0610 | 30 | 1.1811 | 75 | ●     |
| ADL-0160    | 1.60 | 0.0630 | 30 | 1.1811 | 75 | ●     |
| ADL-0165    | 1.65 | 0.0650 | 30 | 1.1811 | 75 | ●     |
| ADL-0170    | 1.70 | 0.0669 | 30 | 1.1811 | 75 | ●     |
| ADL-0175    | 1.75 | 0.0689 | 30 | 1.1811 | 75 | ●     |
| ADL-0180    | 1.80 | 0.0709 | 30 | 1.1811 | 75 | ●     |
| ADL-0185    | 1.85 | 0.0728 | 30 | 1.1811 | 75 | ●     |
| ADL-0190    | 1.90 | 0.0748 | 30 | 1.1811 | 75 | ●     |
| ADL-0195    | 1.95 | 0.0768 | 30 | 1.1811 | 75 | ●     |
| ADL-0200    | 2.00 | 0.0787 | 30 | 1.1811 | 75 | ●     |
| ADL-0205    | 2.05 | 0.0807 | 30 | 1.1811 | 75 | ●     |
| ADL-0210    | 2.10 | 0.0827 | 30 | 1.1811 | 75 | ●     |
| ADL-0215    | 2.15 | 0.0846 | 30 | 1.1811 | 75 | ●     |
| ADL-0220    | 2.20 | 0.0866 | 30 | 1.1811 | 75 | ●     |
| ADL-0225    | 2.25 | 0.0886 | 30 | 1.1811 | 75 | ●     |
| ADL-0230    | 2.30 | 0.0906 | 30 | 1.1811 | 75 | ●     |
| ADL-0235    | 2.35 | 0.0925 | 30 | 1.1811 | 75 | ●     |

| Product No. | ØD   |        | ℓ  |        | L   | Stock |
|-------------|------|--------|----|--------|-----|-------|
|             | mm   | inch   | mm | inch   | mm  |       |
| ADL-0240    | 2.40 | 0.0945 | 35 | 1.3780 | 100 | ●     |
| ADL-0245    | 2.45 | 0.0965 | 35 | 1.3780 | 100 | ●     |
| ADL-0250    | 2.50 | 0.0984 | 35 | 1.3780 | 100 | ●     |
| ADL-0255    | 2.55 | 0.1004 | 35 | 1.3780 | 100 | ●     |
| ADL-0260    | 2.60 | 0.1024 | 35 | 1.3780 | 100 | ●     |
| ADL-0265    | 2.65 | 0.1043 | 35 | 1.3780 | 100 | ●     |
| ADL-0270    | 2.70 | 0.1063 | 35 | 1.3780 | 100 | ●     |
| ADL-0275    | 2.75 | 0.1083 | 35 | 1.3780 | 100 | ●     |
| ADL-0280    | 2.80 | 0.1102 | 35 | 1.3780 | 100 | ●     |
| ADL-0285    | 2.85 | 0.1122 | 35 | 1.3780 | 100 | ●     |
| ADL-0290    | 2.90 | 0.1142 | 35 | 1.3780 | 100 | ●     |
| ADL-0295    | 2.95 | 0.1161 | 35 | 1.3780 | 100 | ●     |
| ADL-0300    | 3.00 | 0.1181 | 50 | 1.9685 | 100 | ●     |
| ADL-0305    | 3.05 | 0.1201 | 50 | 1.9685 | 100 | ○     |
| ADL-0310    | 3.10 | 0.1220 | 50 | 1.9685 | 100 | ○     |
| ADL-0315    | 3.15 | 0.1240 | 50 | 1.9685 | 100 | ○     |
| ADL-0320    | 3.20 | 0.1260 | 50 | 1.9685 | 100 | ○     |
| ADL-0325    | 3.25 | 0.1280 | 50 | 1.9685 | 100 | ○     |
| ADL-0330    | 3.30 | 0.1299 | 50 | 1.9685 | 100 | ○     |
| ADL-0335    | 3.35 | 0.1319 | 50 | 1.9685 | 100 | ○     |
| ADL-0340    | 3.40 | 0.1339 | 50 | 1.9685 | 100 | ○     |
| ADL-0345    | 3.45 | 0.1358 | 50 | 1.9685 | 100 | ○     |
| ADL-0350    | 3.50 | 0.1378 | 50 | 1.9685 | 100 | ○     |
| ADL-0355    | 3.55 | 0.1398 | 50 | 1.9685 | 100 | ○     |
| ADL-0360    | 3.60 | 0.1417 | 50 | 1.9685 | 100 | ○     |
| ADL-0365    | 3.65 | 0.1437 | 50 | 1.9685 | 100 | ○     |
| ADL-0370    | 3.70 | 0.1457 | 50 | 1.9685 | 100 | ○     |
| ADL-0375    | 3.75 | 0.1476 | 50 | 1.9685 | 100 | ○     |
| ADL-0380    | 3.80 | 0.1496 | 50 | 1.9685 | 100 | ○     |
| ADL-0385    | 3.85 | 0.1516 | 50 | 1.9685 | 100 | ○     |
| ADL-0390    | 3.90 | 0.1535 | 50 | 1.9685 | 100 | ○     |
| ADL-0395    | 3.95 | 0.1555 | 50 | 1.9685 | 100 | ○     |
| ADL-0400    | 4.00 | 0.1575 | 50 | 1.9685 | 100 | ○     |
| ADL-0405    | 4.05 | 0.1594 | 50 | 1.9685 | 100 | ○     |
| ADL-0410    | 4.10 | 0.1614 | 50 | 1.9685 | 100 | ○     |
| ADL-0415    | 4.15 | 0.1634 | 50 | 1.9685 | 100 | ○     |
| ADL-0420    | 4.20 | 0.1654 | 50 | 1.9685 | 100 | ○     |
| ADL-0425    | 4.25 | 0.1673 | 50 | 1.9685 | 100 | ○     |
| ADL-0430    | 4.30 | 0.1693 | 50 | 1.9685 | 100 | ○     |
| ADL-0435    | 4.35 | 0.1713 | 50 | 1.9685 | 100 | ○     |
| ADL-0440    | 4.40 | 0.1732 | 50 | 1.9685 | 100 | ○     |
| ADL-0445    | 4.45 | 0.1752 | 50 | 1.9685 | 100 | ○     |

● US Stock Item ○ Japan Stock Item

# STRAIGHT SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ⊙               | ⊙             |               | ○               | △               | ⊙        |

⊙ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L   | Stock |
|-------------|------|--------|----|--------|-----|-------|
|             | mm   | inch   | mm | inch   |     |       |
| ADL-0450    | 4.50 | 0.1772 | 50 | 1.9685 | 100 | ○     |
| ADL-0455    | 4.55 | 0.1791 | 50 | 1.9685 | 100 | ○     |
| ADL-0460    | 4.60 | 0.1811 | 50 | 1.9685 | 100 | ○     |
| ADL-0465    | 4.65 | 0.1831 | 50 | 1.9685 | 100 | ○     |
| ADL-0470    | 4.70 | 0.1850 | 50 | 1.9685 | 100 | ○     |
| ADL-0475    | 4.75 | 0.1870 | 50 | 1.9685 | 100 | ○     |
| ADL-0480    | 4.80 | 0.1890 | 50 | 1.9685 | 100 | ○     |
| ADL-0485    | 4.85 | 0.1909 | 50 | 1.9685 | 100 | ○     |
| ADL-0490    | 4.90 | 0.1929 | 50 | 1.9685 | 100 | ○     |
| ADL-0495    | 4.95 | 0.1949 | 50 | 1.9685 | 100 | ○     |
| ADL-0500    | 5.00 | 0.1969 | 75 | 2.9528 | 150 | ○     |
| ADL-0505    | 5.05 | 0.1988 | 75 | 2.9528 | 150 | ○     |
| ADL-0510    | 5.10 | 0.2008 | 75 | 2.9528 | 150 | ○     |
| ADL-0515    | 5.15 | 0.2028 | 75 | 2.9528 | 150 | ○     |
| ADL-0520    | 5.20 | 0.2047 | 75 | 2.9528 | 150 | ○     |
| ADL-0525    | 5.25 | 0.2067 | 75 | 2.9528 | 150 | ○     |
| ADL-0530    | 5.30 | 0.2087 | 75 | 2.9528 | 150 | ○     |
| ADL-0535    | 5.35 | 0.2106 | 75 | 2.9528 | 150 | ○     |
| ADL-0540    | 5.40 | 0.2126 | 75 | 2.9528 | 150 | ○     |
| ADL-0545    | 5.45 | 0.2146 | 75 | 2.9528 | 150 | ○     |
| ADL-0550    | 5.50 | 0.2165 | 75 | 2.9528 | 150 | ○     |
| ADL-0555    | 5.55 | 0.2185 | 75 | 2.9528 | 150 | ○     |
| ADL-0560    | 5.60 | 0.2205 | 75 | 2.9528 | 150 | ○     |
| ADL-0565    | 5.65 | 0.2224 | 75 | 2.9528 | 150 | ○     |
| ADL-0570    | 5.70 | 0.2244 | 75 | 2.9528 | 150 | ○     |
| ADL-0575    | 5.75 | 0.2264 | 75 | 2.9528 | 150 | ○     |
| ADL-0580    | 5.80 | 0.2283 | 75 | 2.9528 | 150 | ○     |
| ADL-0585    | 5.85 | 0.2303 | 75 | 2.9528 | 150 | ○     |
| ADL-0590    | 5.90 | 0.2323 | 75 | 2.9528 | 150 | ○     |
| ADL-0595    | 5.95 | 0.2343 | 75 | 2.9528 | 150 | ○     |
| ADL-0600    | 6.00 | 0.2362 | 75 | 2.9528 | 150 | ○     |
| ADL-0610    | 6.10 | 0.2402 | 75 | 2.9528 | 150 | ○     |
| ADL-0620    | 6.20 | 0.2441 | 75 | 2.9528 | 150 | ○     |
| ADL-0630    | 6.30 | 0.2480 | 75 | 2.9528 | 150 | ○     |
| ADL-0640    | 6.40 | 0.2520 | 75 | 2.9528 | 150 | ○     |
| ADL-0650    | 6.50 | 0.2559 | 75 | 2.9528 | 150 | ○     |
| ADL-0660    | 6.60 | 0.2598 | 75 | 2.9528 | 150 | ○     |
| ADL-0670    | 6.70 | 0.2638 | 75 | 2.9528 | 150 | ○     |
| ADL-0680    | 6.80 | 0.2677 | 75 | 2.9528 | 150 | ○     |
| ADL-0690    | 6.90 | 0.2717 | 75 | 2.9528 | 150 | ○     |

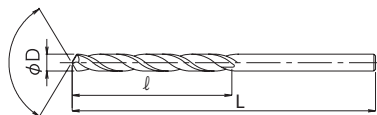
● US Stock Item ○ Japan Stock Item

| Product No. | ØD    |        | ℓ  |        | L   | Stock |
|-------------|-------|--------|----|--------|-----|-------|
|             | mm    | inch   | mm | inch   |     |       |
| ADL-0700    | 7.00  | 0.2756 | 75 | 2.9528 | 150 | ○     |
| ADL-0710    | 7.10  | 0.2795 | 75 | 2.9528 | 150 | ○     |
| ADL-0720    | 7.20  | 0.2835 | 75 | 2.9528 | 150 | ○     |
| ADL-0730    | 7.30  | 0.2874 | 75 | 2.9528 | 150 | ○     |
| ADL-0740    | 7.40  | 0.2913 | 75 | 2.9528 | 150 | ○     |
| ADL-0750    | 7.50  | 0.2953 | 75 | 2.9528 | 150 | ○     |
| ADL-0760    | 7.60  | 0.2992 | 75 | 2.9528 | 150 | ○     |
| ADL-0770    | 7.70  | 0.3031 | 75 | 2.9528 | 150 | ○     |
| ADL-0780    | 7.80  | 0.3071 | 75 | 2.9528 | 150 | ○     |
| ADL-0790    | 7.90  | 0.3110 | 75 | 2.9528 | 150 | ○     |
| ADL-0800    | 8.00  | 0.3150 | 75 | 2.9528 | 150 | ○     |
| ADL-0810    | 8.10  | 0.3189 | 75 | 2.9528 | 150 | ○     |
| ADL-0820    | 8.20  | 0.3228 | 75 | 2.9528 | 150 | ○     |
| ADL-0830    | 8.30  | 0.3268 | 75 | 2.9528 | 150 | ○     |
| ADL-0840    | 8.40  | 0.3307 | 75 | 2.9528 | 150 | ○     |
| ADL-0850    | 8.50  | 0.3346 | 75 | 2.9528 | 150 | ○     |
| ADL-0860    | 8.60  | 0.3386 | 75 | 2.9528 | 150 | ○     |
| ADL-0870    | 8.70  | 0.3425 | 75 | 2.9528 | 150 | ○     |
| ADL-0880    | 8.80  | 0.3465 | 75 | 2.9528 | 150 | ○     |
| ADL-0890    | 8.90  | 0.3504 | 75 | 2.9528 | 150 | ○     |
| ADL-0900    | 9.00  | 0.3543 | 75 | 2.9528 | 150 | ○     |
| ADL-0910    | 9.10  | 0.3583 | 75 | 2.9528 | 150 | ○     |
| ADL-0920    | 9.20  | 0.3622 | 75 | 2.9528 | 150 | ○     |
| ADL-0930    | 9.30  | 0.3661 | 75 | 2.9528 | 150 | ○     |
| ADL-0940    | 9.40  | 0.3701 | 75 | 2.9528 | 150 | ○     |
| ADL-0950    | 9.50  | 0.3740 | 75 | 2.9528 | 150 | ○     |
| ADL-0960    | 9.60  | 0.3780 | 75 | 2.9528 | 150 | ○     |
| ADL-0970    | 9.70  | 0.3819 | 75 | 2.9528 | 150 | ○     |
| ADL-0980    | 9.80  | 0.3858 | 75 | 2.9528 | 150 | ○     |
| ADL-0990    | 9.90  | 0.3898 | 75 | 2.9528 | 150 | ○     |
| ADL-1000    | 10.00 | 0.3937 | 75 | 2.9528 | 150 | ○     |
| ADL-1050    | 10.50 | 0.4134 | 90 | 3.5433 | 200 | ○     |
| ADL-1100    | 11.00 | 0.4331 | 90 | 3.5433 | 200 | ○     |
| ADL-1150    | 11.50 | 0.4528 | 90 | 3.5433 | 200 | ○     |
| ADL-1200    | 12.00 | 0.4724 | 90 | 3.5433 | 200 | ○     |
| ADL-1250    | 12.50 | 0.4921 | 90 | 3.5433 | 200 | ○     |
| ADL-1300    | 13.00 | 0.5118 | 90 | 3.5433 | 200 | ○     |

# STRAIGHT SHANK DRILLS

# ADLL

EXTRA LONG, UNCOATED, FOR DEEP DRILLING



ØD Tolerance:  
+0/-0.01 mm

| Product No. | ØD   |        | ℓ  |        | L   | Stock |
|-------------|------|--------|----|--------|-----|-------|
|             | mm   | inch   | mm | inch   | mm  |       |
| ADLL-0030   | 0.30 | 0.0118 | 15 | 0.5906 | 75  | ●     |
| ADLL-0035   | 0.35 | 0.0138 | 15 | 0.5906 | 75  | ●     |
| ADLL-0040   | 0.40 | 0.0157 | 15 | 0.5906 | 75  | ●     |
| ADLL-0045   | 0.45 | 0.0177 | 15 | 0.5906 | 75  | ●     |
| ADLL-0050   | 0.50 | 0.0197 | 15 | 0.5906 | 75  | ●     |
| ADLL-0055   | 0.55 | 0.0217 | 20 | 0.7874 | 90  | ●     |
| ADLL-0060   | 0.60 | 0.0236 | 20 | 0.7874 | 90  | ●     |
| ADLL-0065   | 0.65 | 0.0256 | 20 | 0.7874 | 90  | ●     |
| ADLL-0070   | 0.70 | 0.0276 | 20 | 0.7874 | 90  | ●     |
| ADLL-0075   | 0.75 | 0.0295 | 20 | 0.7874 | 90  | ●     |
| ADLL-0080   | 0.80 | 0.0315 | 25 | 0.9843 | 100 | ●     |
| ADLL-0085   | 0.85 | 0.0335 | 25 | 0.9843 | 100 | ●     |
| ADLL-0090   | 0.90 | 0.0354 | 25 | 0.9843 | 100 | ●     |
| ADLL-0095   | 0.95 | 0.0374 | 25 | 0.9843 | 100 | ●     |
| ADLL-0100   | 1.00 | 0.0394 | 30 | 1.1811 | 100 | ●     |
| ADLL-0105   | 1.05 | 0.0413 | 30 | 1.1811 | 100 | ●     |
| ADLL-0110   | 1.10 | 0.0433 | 30 | 1.1811 | 100 | ●     |
| ADLL-0115   | 1.15 | 0.0453 | 30 | 1.1811 | 100 | ●     |
| ADLL-0120   | 1.20 | 0.0472 | 35 | 1.3780 | 100 | ●     |
| ADLL-0125   | 1.25 | 0.0492 | 35 | 1.3780 | 100 | ●     |
| ADLL-0130   | 1.30 | 0.0512 | 35 | 1.3780 | 100 | ●     |
| ADLL-0135   | 1.35 | 0.0531 | 35 | 1.3780 | 100 | ●     |
| ADLL-0140   | 1.40 | 0.0551 | 40 | 1.5748 | 100 | ●     |
| ADLL-0145   | 1.45 | 0.0571 | 40 | 1.5748 | 100 | ●     |
| ADLL-0150   | 1.50 | 0.0591 | 40 | 1.5748 | 100 | ●     |
| ADLL-0155   | 1.55 | 0.0610 | 40 | 1.5748 | 100 | ●     |
| ADLL-0160   | 1.60 | 0.0630 | 40 | 1.5748 | 100 | ●     |
| ADLL-0165   | 1.65 | 0.0650 | 40 | 1.5748 | 100 | ●     |
| ADLL-0170   | 1.70 | 0.0669 | 40 | 1.5748 | 100 | ●     |
| ADLL-0175   | 1.75 | 0.0689 | 40 | 1.5748 | 100 | ●     |
| ADLL-0180   | 1.80 | 0.0709 | 40 | 1.5748 | 100 | ●     |
| ADLL-0185   | 1.85 | 0.0728 | 40 | 1.5748 | 100 | ●     |
| ADLL-0190   | 1.90 | 0.0748 | 40 | 1.5748 | 100 | ●     |
| ADLL-0195   | 1.95 | 0.0768 | 40 | 1.5748 | 100 | ●     |
| ADLL-0200   | 2.00 | 0.0787 | 40 | 1.5748 | 100 | ●     |
| ADLL-0205   | 2.05 | 0.0807 | 40 | 1.5748 | 100 | ●     |
| ADLL-0210   | 2.10 | 0.0827 | 40 | 1.5748 | 100 | ●     |
| ADLL-0215   | 2.15 | 0.0846 | 40 | 1.5748 | 100 | ●     |
| ADLL-0220   | 2.20 | 0.0866 | 40 | 1.5748 | 100 | ●     |
| ADLL-0225   | 2.25 | 0.0886 | 40 | 1.5748 | 100 | ●     |
| ADLL-0230   | 2.30 | 0.0906 | 40 | 1.5748 | 100 | ●     |
| ADLL-0235   | 2.35 | 0.0925 | 40 | 1.5748 | 100 | ●     |

| Product No. | ØD   |        | ℓ  |        | L   | Stock |
|-------------|------|--------|----|--------|-----|-------|
|             | mm   | inch   | mm | inch   | mm  |       |
| ADLL-0240   | 2.40 | 0.0945 | 50 | 1.9685 | 150 | ●     |
| ADLL-0245   | 2.45 | 0.0965 | 50 | 1.9685 | 150 | ●     |
| ADLL-0250   | 2.50 | 0.0984 | 50 | 1.9685 | 150 | ●     |
| ADLL-0255   | 2.55 | 0.1004 | 50 | 1.9685 | 150 | ●     |
| ADLL-0260   | 2.60 | 0.1024 | 50 | 1.9685 | 150 | ●     |
| ADLL-0265   | 2.65 | 0.1043 | 50 | 1.9685 | 150 | ●     |
| ADLL-0270   | 2.70 | 0.1063 | 50 | 1.9685 | 150 | ●     |
| ADLL-0275   | 2.75 | 0.1083 | 50 | 1.9685 | 150 | ●     |
| ADLL-0280   | 2.80 | 0.1102 | 50 | 1.9685 | 150 | ●     |
| ADLL-0285   | 2.85 | 0.1122 | 50 | 1.9685 | 150 | ●     |
| ADLL-0290   | 2.90 | 0.1142 | 50 | 1.9685 | 150 | ●     |
| ADLL-0295   | 2.95 | 0.1161 | 50 | 1.9685 | 150 | ●     |
| ADLL-0300   | 3.00 | 0.1181 | 65 | 2.5591 | 150 | ●     |
| ADLL-0305   | 3.05 | 0.1201 | 65 | 2.5591 | 150 | ○     |
| ADLL-0310   | 3.10 | 0.1220 | 65 | 2.5591 | 150 | ○     |
| ADLL-0315   | 3.15 | 0.1240 | 65 | 2.5591 | 150 | ○     |
| ADLL-0320   | 3.20 | 0.1260 | 65 | 2.5591 | 150 | ○     |
| ADLL-0325   | 3.25 | 0.1280 | 65 | 2.5591 | 150 | ○     |
| ADLL-0330   | 3.30 | 0.1299 | 65 | 2.5591 | 150 | ○     |
| ADLL-0335   | 3.35 | 0.1319 | 65 | 2.5591 | 150 | ○     |
| ADLL-0340   | 3.40 | 0.1339 | 65 | 2.5591 | 150 | ○     |
| ADLL-0345   | 3.45 | 0.1358 | 65 | 2.5591 | 150 | ○     |
| ADLL-0350   | 3.50 | 0.1378 | 65 | 2.5591 | 150 | ○     |
| ADLL-0355   | 3.55 | 0.1398 | 65 | 2.5591 | 150 | ○     |
| ADLL-0360   | 3.60 | 0.1417 | 75 | 2.9528 | 150 | ○     |
| ADLL-0365   | 3.65 | 0.1437 | 75 | 2.9528 | 150 | ○     |
| ADLL-0370   | 3.70 | 0.1457 | 75 | 2.9528 | 150 | ○     |
| ADLL-0375   | 3.75 | 0.1476 | 75 | 2.9528 | 150 | ○     |
| ADLL-0380   | 3.80 | 0.1496 | 75 | 2.9528 | 150 | ○     |
| ADLL-0385   | 3.85 | 0.1516 | 75 | 2.9528 | 150 | ○     |
| ADLL-0390   | 3.90 | 0.1535 | 75 | 2.9528 | 150 | ○     |
| ADLL-0395   | 3.95 | 0.1555 | 75 | 2.9528 | 150 | ○     |
| ADLL-0400   | 4.00 | 0.1575 | 75 | 2.9528 | 150 | ○     |
| ADLL-0405   | 4.05 | 0.1594 | 75 | 2.9528 | 150 | ○     |
| ADLL-0410   | 4.10 | 0.1614 | 75 | 2.9528 | 150 | ○     |
| ADLL-0415   | 4.15 | 0.1634 | 75 | 2.9528 | 150 | ○     |
| ADLL-0420   | 4.20 | 0.1654 | 75 | 2.9528 | 150 | ○     |
| ADLL-0425   | 4.25 | 0.1673 | 75 | 2.9528 | 150 | ○     |
| ADLL-0430   | 4.30 | 0.1693 | 75 | 2.9528 | 150 | ○     |
| ADLL-0435   | 4.35 | 0.1713 | 75 | 2.9528 | 150 | ○     |
| ADLL-0440   | 4.40 | 0.1732 | 75 | 2.9528 | 150 | ○     |
| ADLL-0445   | 4.45 | 0.1752 | 75 | 2.9528 | 150 | ○     |

● US Stock Item ○ Japan Stock Item

# STRAIGHT SHANK DRILLS

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| △             | △            | △           | △                | △         | ◎               | ◎             |               | ○               | △               | ◎        |

◎ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L   | Stock |
|-------------|------|--------|----|--------|-----|-------|
|             | mm   | inch   | mm | inch   |     |       |
| ADLL-0450   | 4.50 | 0.1772 | 75 | 2.9528 | 150 | ○     |
| ADLL-0455   | 4.55 | 0.1791 | 75 | 2.9528 | 150 | ○     |
| ADLL-0460   | 4.60 | 0.1811 | 75 | 2.9528 | 150 | ○     |
| ADLL-0465   | 4.65 | 0.1831 | 75 | 2.9528 | 150 | ○     |
| ADLL-0470   | 4.70 | 0.1850 | 75 | 2.9528 | 150 | ○     |
| ADLL-0475   | 4.75 | 0.1870 | 75 | 2.9528 | 150 | ○     |
| ADLL-0480   | 4.80 | 0.1890 | 75 | 2.9528 | 150 | ○     |
| ADLL-0485   | 4.85 | 0.1909 | 75 | 2.9528 | 150 | ○     |
| ADLL-0490   | 4.90 | 0.1929 | 75 | 2.9528 | 150 | ○     |
| ADLL-0495   | 4.95 | 0.1949 | 75 | 2.9528 | 150 | ○     |
| ADLL-0500   | 5.00 | 0.1969 | 90 | 3.5433 | 200 | ○     |
| ADLL-0505   | 5.05 | 0.1988 | 90 | 3.5433 | 200 | ○     |
| ADLL-0510   | 5.10 | 0.2008 | 90 | 3.5433 | 200 | ○     |
| ADLL-0515   | 5.15 | 0.2028 | 90 | 3.5433 | 200 | ○     |
| ADLL-0520   | 5.20 | 0.2047 | 90 | 3.5433 | 200 | ○     |
| ADLL-0525   | 5.25 | 0.2067 | 90 | 3.5433 | 200 | ○     |
| ADLL-0530   | 5.30 | 0.2087 | 90 | 3.5433 | 200 | ○     |
| ADLL-0535   | 5.35 | 0.2106 | 90 | 3.5433 | 200 | ○     |
| ADLL-0540   | 5.40 | 0.2126 | 90 | 3.5433 | 200 | ○     |
| ADLL-0545   | 5.45 | 0.2146 | 90 | 3.5433 | 200 | ○     |
| ADLL-0550   | 5.50 | 0.2165 | 90 | 3.5433 | 200 | ○     |
| ADLL-0555   | 5.55 | 0.2185 | 90 | 3.5433 | 200 | ○     |
| ADLL-0560   | 5.60 | 0.2205 | 90 | 3.5433 | 200 | ○     |
| ADLL-0565   | 5.65 | 0.2224 | 90 | 3.5433 | 200 | ○     |
| ADLL-0570   | 5.70 | 0.2244 | 90 | 3.5433 | 200 | ○     |
| ADLL-0575   | 5.75 | 0.2264 | 90 | 3.5433 | 200 | ○     |
| ADLL-0580   | 5.80 | 0.2283 | 90 | 3.5433 | 200 | ○     |
| ADLL-0585   | 5.85 | 0.2303 | 90 | 3.5433 | 200 | ○     |
| ADLL-0590   | 5.90 | 0.2323 | 90 | 3.5433 | 200 | ○     |
| ADLL-0595   | 5.95 | 0.2343 | 90 | 3.5433 | 200 | ○     |
| ADLL-0600   | 6.00 | 0.2362 | 90 | 3.5433 | 200 | ○     |
| ADLL-0610   | 6.10 | 0.2402 | 90 | 3.5433 | 200 | ○     |
| ADLL-0620   | 6.20 | 0.2441 | 90 | 3.5433 | 200 | ○     |
| ADLL-0630   | 6.30 | 0.2480 | 90 | 3.5433 | 200 | ○     |
| ADLL-0640   | 6.40 | 0.2520 | 90 | 3.5433 | 200 | ○     |
| ADLL-0650   | 6.50 | 0.2559 | 90 | 3.5433 | 200 | ○     |
| ADLL-0660   | 6.60 | 0.2598 | 90 | 3.5433 | 200 | ○     |
| ADLL-0670   | 6.70 | 0.2638 | 90 | 3.5433 | 200 | ○     |
| ADLL-0680   | 6.80 | 0.2677 | 90 | 3.5433 | 200 | ○     |
| ADLL-0690   | 6.90 | 0.2717 | 90 | 3.5433 | 200 | ○     |

● US Stock Item ○ Japan Stock Item

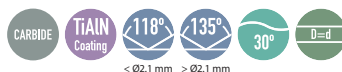
| Product No. | ØD    |        | ℓ   |        | L   | Stock |
|-------------|-------|--------|-----|--------|-----|-------|
|             | mm    | inch   | mm  | inch   |     |       |
| ADLL-0700   | 7.00  | 0.2756 | 90  | 3.5433 | 200 | ○     |
| ADLL-0710   | 7.10  | 0.2795 | 90  | 3.5433 | 200 | ○     |
| ADLL-0720   | 7.20  | 0.2835 | 90  | 3.5433 | 200 | ○     |
| ADLL-0730   | 7.30  | 0.2874 | 90  | 3.5433 | 200 | ○     |
| ADLL-0740   | 7.40  | 0.2913 | 90  | 3.5433 | 200 | ○     |
| ADLL-0750   | 7.50  | 0.2953 | 90  | 3.5433 | 200 | ○     |
| ADLL-0760   | 7.60  | 0.2992 | 90  | 3.5433 | 200 | ○     |
| ADLL-0770   | 7.70  | 0.3031 | 90  | 3.5433 | 200 | ○     |
| ADLL-0780   | 7.80  | 0.3071 | 90  | 3.5433 | 200 | ○     |
| ADLL-0790   | 7.90  | 0.3110 | 90  | 3.5433 | 200 | ○     |
| ADLL-0800   | 8.00  | 0.3150 | 90  | 3.5433 | 200 | ○     |
| ADLL-0810   | 8.10  | 0.3189 | 90  | 3.5433 | 200 | ○     |
| ADLL-0820   | 8.20  | 0.3228 | 90  | 3.5433 | 200 | ○     |
| ADLL-0830   | 8.30  | 0.3268 | 90  | 3.5433 | 200 | ○     |
| ADLL-0840   | 8.40  | 0.3307 | 90  | 3.5433 | 200 | ○     |
| ADLL-0850   | 8.50  | 0.3346 | 90  | 3.5433 | 200 | ○     |
| ADLL-0860   | 8.60  | 0.3386 | 90  | 3.5433 | 200 | ○     |
| ADLL-0870   | 8.70  | 0.3425 | 90  | 3.5433 | 200 | ○     |
| ADLL-0880   | 8.80  | 0.3465 | 90  | 3.5433 | 200 | ○     |
| ADLL-0890   | 8.90  | 0.3504 | 90  | 3.5433 | 200 | ○     |
| ADLL-0900   | 9.00  | 0.3543 | 90  | 3.5433 | 200 | ○     |
| ADLL-0910   | 9.10  | 0.3583 | 90  | 3.5433 | 200 | ○     |
| ADLL-0920   | 9.20  | 0.3622 | 90  | 3.5433 | 200 | ○     |
| ADLL-0930   | 9.30  | 0.3661 | 90  | 3.5433 | 200 | ○     |
| ADLL-0940   | 9.40  | 0.3701 | 90  | 3.5433 | 200 | ○     |
| ADLL-0950   | 9.50  | 0.3740 | 90  | 3.5433 | 200 | ○     |
| ADLL-0960   | 9.60  | 0.3780 | 90  | 3.5433 | 200 | ○     |
| ADLL-0970   | 9.70  | 0.3819 | 90  | 3.5433 | 200 | ○     |
| ADLL-0980   | 9.80  | 0.3858 | 90  | 3.5433 | 200 | ○     |
| ADLL-0990   | 9.90  | 0.3898 | 90  | 3.5433 | 200 | ○     |
| ADLL-1000   | 10.00 | 0.3937 | 90  | 3.5433 | 200 | ○     |
| ADLL-1050   | 10.50 | 0.4134 | 120 | 4.7244 | 250 | ○     |
| ADLL-1100   | 11.00 | 0.4331 | 120 | 4.7244 | 250 | ○     |
| ADLL-1150   | 11.50 | 0.4528 | 120 | 4.7244 | 250 | ○     |
| ADLL-1200   | 12.00 | 0.4724 | 120 | 4.7244 | 250 | ○     |
| ADLL-1250   | 12.50 | 0.4921 | 120 | 4.7244 | 250 | ○     |
| ADLL-1300   | 13.00 | 0.5118 | 120 | 4.7244 | 250 | ○     |

# STRAIGHT SHANK DRILLS

TiAlN Coating

## V-ADS

REGULAR, TiAlN COATED, FOR GENERAL PURPOSE



ØD Tolerance:  
+0/-0.01 mm

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   | mm |       |
| V-ADS-0030  | 0.30 | 0.0118 | 4  | 0.1575 | 30 | ●     |
| V-ADS-0031  | 0.31 | 0.0122 | 4  | 0.1575 | 30 | ●     |
| V-ADS-0032  | 0.32 | 0.0126 | 4  | 0.1575 | 30 | ●     |
| V-ADS-0033  | 0.33 | 0.0130 | 4  | 0.1575 | 30 | ●     |
| V-ADS-0034  | 0.34 | 0.0134 | 4  | 0.1575 | 30 | ●     |
| V-ADS-0035  | 0.35 | 0.0138 | 4  | 0.1575 | 30 | ●     |
| V-ADS-0036  | 0.36 | 0.0142 | 4  | 0.1575 | 30 | ●     |
| V-ADS-0037  | 0.37 | 0.0146 | 4  | 0.1575 | 30 | ●     |
| V-ADS-0038  | 0.38 | 0.0150 | 4  | 0.1575 | 30 | ●     |
| V-ADS-0039  | 0.39 | 0.0154 | 4  | 0.1575 | 30 | ●     |
| V-ADS-0040  | 0.40 | 0.0157 | 5  | 0.1969 | 30 | ●     |
| V-ADS-0041  | 0.41 | 0.0161 | 5  | 0.1969 | 30 | ●     |
| V-ADS-0042  | 0.42 | 0.0165 | 5  | 0.1969 | 30 | ●     |
| V-ADS-0043  | 0.43 | 0.0169 | 5  | 0.1969 | 30 | ●     |
| V-ADS-0044  | 0.44 | 0.0173 | 5  | 0.1969 | 30 | ●     |
| V-ADS-0045  | 0.45 | 0.0177 | 5  | 0.1969 | 30 | ●     |
| V-ADS-0046  | 0.46 | 0.0181 | 5  | 0.1969 | 30 | ●     |
| V-ADS-0047  | 0.47 | 0.0185 | 5  | 0.1969 | 30 | ●     |
| V-ADS-0048  | 0.48 | 0.0189 | 5  | 0.1969 | 30 | ●     |
| V-ADS-0049  | 0.49 | 0.0193 | 5  | 0.1969 | 30 | ●     |
| V-ADS-0050  | 0.50 | 0.0197 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0051  | 0.51 | 0.0201 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0052  | 0.52 | 0.0205 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0053  | 0.53 | 0.0209 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0054  | 0.54 | 0.0213 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0055  | 0.55 | 0.0217 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0056  | 0.56 | 0.0220 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0057  | 0.57 | 0.0224 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0058  | 0.58 | 0.0228 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0059  | 0.59 | 0.0232 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0060  | 0.60 | 0.0236 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0061  | 0.61 | 0.0240 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0062  | 0.62 | 0.0244 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0063  | 0.63 | 0.0248 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0064  | 0.64 | 0.0252 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0065  | 0.65 | 0.0256 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0066  | 0.66 | 0.0260 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0067  | 0.67 | 0.0264 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0068  | 0.68 | 0.0268 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0069  | 0.69 | 0.0272 | 6  | 0.2362 | 30 | ●     |
| V-ADS-0070  | 0.70 | 0.0276 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0071  | 0.71 | 0.0280 | 12 | 0.4724 | 40 | ●     |

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   | mm |       |
| V-ADS-0072  | 0.72 | 0.0283 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0073  | 0.73 | 0.0287 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0074  | 0.74 | 0.0291 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0075  | 0.75 | 0.0295 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0076  | 0.76 | 0.0299 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0077  | 0.77 | 0.0303 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0078  | 0.78 | 0.0307 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0079  | 0.79 | 0.0311 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0080  | 0.80 | 0.0315 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0081  | 0.81 | 0.0319 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0082  | 0.82 | 0.0323 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0083  | 0.83 | 0.0327 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0084  | 0.84 | 0.0331 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0085  | 0.85 | 0.0335 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0086  | 0.86 | 0.0339 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0087  | 0.87 | 0.0343 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0088  | 0.88 | 0.0346 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0089  | 0.89 | 0.0350 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0090  | 0.90 | 0.0354 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0091  | 0.91 | 0.0358 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0092  | 0.92 | 0.0362 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0093  | 0.93 | 0.0366 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0094  | 0.94 | 0.0370 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0095  | 0.95 | 0.0374 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0096  | 0.96 | 0.0378 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0097  | 0.97 | 0.0382 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0098  | 0.98 | 0.0386 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0099  | 0.99 | 0.0390 | 12 | 0.4724 | 40 | ●     |
| V-ADS-0100  | 1.00 | 0.0394 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0101  | 1.01 | 0.0398 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0102  | 1.02 | 0.0402 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0103  | 1.03 | 0.0406 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0104  | 1.04 | 0.0409 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0105  | 1.05 | 0.0413 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0106  | 1.06 | 0.0417 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0107  | 1.07 | 0.0421 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0108  | 1.08 | 0.0425 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0109  | 1.09 | 0.0429 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0110  | 1.10 | 0.0433 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0111  | 1.11 | 0.0437 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0112  | 1.12 | 0.0441 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0113  | 1.13 | 0.0445 | 15 | 0.5906 | 40 | ●     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ○             | ○            | ○           | ○                | ○         | ○               | ○             | △             | ◎               | ○               | ○        |

◎ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   |    |       |
| V-ADS-0114  | 1.14 | 0.0449 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0115  | 1.15 | 0.0453 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0116  | 1.16 | 0.0457 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0117  | 1.17 | 0.0461 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0118  | 1.18 | 0.0465 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0119  | 1.19 | 0.0469 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0120  | 1.20 | 0.0472 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0121  | 1.21 | 0.0476 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0122  | 1.22 | 0.0480 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0123  | 1.23 | 0.0484 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0124  | 1.24 | 0.0488 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0125  | 1.25 | 0.0492 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0126  | 1.26 | 0.0496 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0127  | 1.27 | 0.0500 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0128  | 1.28 | 0.0504 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0129  | 1.29 | 0.0508 | 15 | 0.5906 | 40 | ●     |
| V-ADS-0130  | 1.30 | 0.0512 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0131  | 1.31 | 0.0516 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0132  | 1.32 | 0.0520 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0133  | 1.33 | 0.0524 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0134  | 1.34 | 0.0528 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0135  | 1.35 | 0.0531 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0136  | 1.36 | 0.0535 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0137  | 1.37 | 0.0539 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0138  | 1.38 | 0.0543 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0139  | 1.39 | 0.0547 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0140  | 1.40 | 0.0551 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0141  | 1.41 | 0.0555 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0142  | 1.42 | 0.0559 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0143  | 1.43 | 0.0563 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0144  | 1.44 | 0.0567 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0145  | 1.45 | 0.0571 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0146  | 1.46 | 0.0575 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0147  | 1.47 | 0.0579 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0148  | 1.48 | 0.0583 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0149  | 1.49 | 0.0587 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0150  | 1.50 | 0.0591 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0151  | 1.51 | 0.0594 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0152  | 1.52 | 0.0598 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0153  | 1.53 | 0.0602 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0154  | 1.54 | 0.0606 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0155  | 1.55 | 0.0610 | 16 | 0.6299 | 40 | ●     |

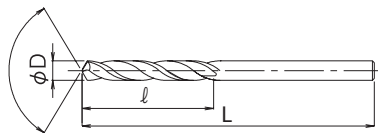
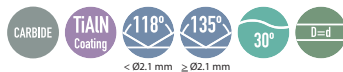
| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   |    |       |
| V-ADS-0156  | 1.56 | 0.0614 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0157  | 1.57 | 0.0618 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0158  | 1.58 | 0.0622 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0159  | 1.59 | 0.0626 | 16 | 0.6299 | 40 | ●     |
| V-ADS-0160  | 1.60 | 0.0630 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0161  | 1.61 | 0.0634 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0162  | 1.62 | 0.0638 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0163  | 1.63 | 0.0642 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0164  | 1.64 | 0.0646 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0165  | 1.65 | 0.0650 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0166  | 1.66 | 0.0654 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0167  | 1.67 | 0.0657 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0168  | 1.68 | 0.0661 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0169  | 1.69 | 0.0665 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0170  | 1.70 | 0.0669 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0171  | 1.71 | 0.0673 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0172  | 1.72 | 0.0677 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0173  | 1.73 | 0.0681 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0174  | 1.74 | 0.0685 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0175  | 1.75 | 0.0689 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0176  | 1.76 | 0.0693 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0177  | 1.77 | 0.0697 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0178  | 1.78 | 0.0701 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0179  | 1.79 | 0.0705 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0180  | 1.80 | 0.0709 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0181  | 1.81 | 0.0713 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0182  | 1.82 | 0.0717 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0183  | 1.83 | 0.0720 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0184  | 1.84 | 0.0724 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0185  | 1.85 | 0.0728 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0186  | 1.86 | 0.0732 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0187  | 1.87 | 0.0736 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0188  | 1.88 | 0.0740 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0189  | 1.89 | 0.0744 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0190  | 1.90 | 0.0748 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0191  | 1.91 | 0.0752 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0192  | 1.92 | 0.0756 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0193  | 1.93 | 0.0760 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0194  | 1.94 | 0.0764 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0195  | 1.95 | 0.0768 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0196  | 1.96 | 0.0772 | 18 | 0.7087 | 40 | ●     |
| V-ADS-0197  | 1.97 | 0.0776 | 18 | 0.7087 | 40 | ●     |

● US Stock Item ○ Japan Stock Item

Next Page ▶

## V-ADS (Cont.)

REGULAR, TiAlN COATED, FOR GENERAL PURPOSE



ØD Tolerance:  
+0/-0.01 mm

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   | mm     |       |
| V-ADS-0198  | 1.98 | 0.0780 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0199  | 1.99 | 0.0783 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0200  | 2.00 | 0.0787 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0201  | 2.01 | 0.0791 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0202  | 2.02 | 0.0795 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0203  | 2.03 | 0.0799 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0204  | 2.04 | 0.0803 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0205  | 2.05 | 0.0807 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0206  | 2.06 | 0.0811 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0207  | 2.07 | 0.0815 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0208  | 2.08 | 0.0819 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0209  | 2.09 | 0.0823 | 18 | 0.7087 | 40     | ●     |
| V-ADS-0210  | 2.10 | 0.0827 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0211  | 2.11 | 0.0831 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0212  | 2.12 | 0.0835 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0213  | 2.13 | 0.0839 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0214  | 2.14 | 0.0843 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0215  | 2.15 | 0.0846 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0216  | 2.16 | 0.0850 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0217  | 2.17 | 0.0854 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0218  | 2.18 | 0.0858 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0219  | 2.19 | 0.0862 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0220  | 2.20 | 0.0866 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0221  | 2.21 | 0.0870 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0222  | 2.22 | 0.0874 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0223  | 2.23 | 0.0878 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0224  | 2.24 | 0.0882 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0225  | 2.25 | 0.0886 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0226  | 2.26 | 0.0890 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0227  | 2.27 | 0.0894 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0228  | 2.28 | 0.0898 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0229  | 2.29 | 0.0902 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0230  | 2.30 | 0.0906 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0231  | 2.31 | 0.0909 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0232  | 2.32 | 0.0913 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0233  | 2.33 | 0.0917 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0234  | 2.34 | 0.0921 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0235  | 2.35 | 0.0925 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0236  | 2.36 | 0.0929 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0237  | 2.37 | 0.0933 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0238  | 2.38 | 0.0937 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0239  | 2.39 | 0.0941 | 20 | 0.7874 | 40(45) | ●     |

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   | mm     |       |
| V-ADS-0240  | 2.40 | 0.0945 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0241  | 2.41 | 0.0949 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0242  | 2.42 | 0.0953 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0243  | 2.43 | 0.0957 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0244  | 2.44 | 0.0961 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0245  | 2.45 | 0.0965 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0246  | 2.46 | 0.0969 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0247  | 2.47 | 0.0972 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0248  | 2.48 | 0.0976 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0249  | 2.49 | 0.0980 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0250  | 2.50 | 0.0984 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0251  | 2.51 | 0.0988 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0252  | 2.52 | 0.0992 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0253  | 2.53 | 0.0996 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0254  | 2.54 | 0.1000 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0255  | 2.55 | 0.1004 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0256  | 2.56 | 0.1008 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0257  | 2.57 | 0.1012 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0258  | 2.58 | 0.1016 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0259  | 2.59 | 0.1020 | 20 | 0.7874 | 40(45) | ●     |
| V-ADS-0260  | 2.60 | 0.1024 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0261  | 2.61 | 0.1028 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0262  | 2.62 | 0.1031 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0263  | 2.63 | 0.1035 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0264  | 2.64 | 0.1039 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0265  | 2.65 | 0.1043 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0266  | 2.66 | 0.1047 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0267  | 2.67 | 0.1051 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0268  | 2.68 | 0.1055 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0269  | 2.69 | 0.1059 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0270  | 2.70 | 0.1063 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0271  | 2.71 | 0.1067 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0272  | 2.72 | 0.1071 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0273  | 2.73 | 0.1075 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0274  | 2.74 | 0.1079 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0275  | 2.75 | 0.1083 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0276  | 2.76 | 0.1087 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0277  | 2.77 | 0.1091 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0278  | 2.78 | 0.1094 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0279  | 2.79 | 0.1098 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0280  | 2.80 | 0.1102 | 20 | 0.7874 | 45     | ●     |
| V-ADS-0281  | 2.81 | 0.1106 | 20 | 0.7874 | 45     | ●     |

● US Stock Item ○ Japan Stock Item

\* Overall length is being changed to figures in parentheses.

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ○             | ○            | ○           | ○                | ○         | ○               | ○             | △             | ◎               | ○               | ○        |

◎ Best ○ Good △ OK

| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   |    |       |
| V-ADS-0282  | 2.82 | 0.1110 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0283  | 2.83 | 0.1114 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0284  | 2.84 | 0.1118 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0285  | 2.85 | 0.1122 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0286  | 2.86 | 0.1126 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0287  | 2.87 | 0.1130 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0288  | 2.88 | 0.1134 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0289  | 2.89 | 0.1138 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0290  | 2.90 | 0.1142 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0291  | 2.91 | 0.1146 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0292  | 2.92 | 0.1150 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0293  | 2.93 | 0.1154 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0294  | 2.94 | 0.1157 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0295  | 2.95 | 0.1161 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0296  | 2.96 | 0.1165 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0297  | 2.97 | 0.1169 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0298  | 2.98 | 0.1173 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0299  | 2.99 | 0.1177 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0300  | 3.00 | 0.1181 | 20 | 0.7874 | 45 | ●     |
| V-ADS-0305  | 3.05 | 0.1201 | 20 | 0.7874 | 45 | ○     |
| V-ADS-0310  | 3.10 | 0.1220 | 25 | 0.9843 | 50 | ○     |
| V-ADS-0315  | 3.15 | 0.1240 | 25 | 0.9843 | 50 | ○     |
| V-ADS-0320  | 3.20 | 0.1260 | 25 | 0.9843 | 50 | ○     |
| V-ADS-0325  | 3.25 | 0.1280 | 25 | 0.9843 | 50 | ○     |
| V-ADS-0330  | 3.30 | 0.1299 | 25 | 0.9843 | 50 | ○     |
| V-ADS-0335  | 3.35 | 0.1319 | 25 | 0.9843 | 50 | ○     |
| V-ADS-0340  | 3.40 | 0.1339 | 25 | 0.9843 | 50 | ○     |
| V-ADS-0345  | 3.45 | 0.1358 | 25 | 0.9843 | 50 | ○     |
| V-ADS-0350  | 3.50 | 0.1378 | 25 | 0.9843 | 50 | ○     |
| V-ADS-0355  | 3.55 | 0.1398 | 25 | 0.9843 | 50 | ○     |
| V-ADS-0360  | 3.60 | 0.1417 | 27 | 1.0630 | 55 | ○     |
| V-ADS-0365  | 3.65 | 0.1437 | 27 | 1.0630 | 55 | ○     |
| V-ADS-0370  | 3.70 | 0.1457 | 27 | 1.0630 | 55 | ○     |
| V-ADS-0375  | 3.75 | 0.1476 | 27 | 1.0630 | 55 | ○     |
| V-ADS-0380  | 3.80 | 0.1496 | 27 | 1.0630 | 55 | ○     |
| V-ADS-0385  | 3.85 | 0.1516 | 27 | 1.0630 | 55 | ○     |
| V-ADS-0390  | 3.90 | 0.1535 | 27 | 1.0630 | 55 | ○     |
| V-ADS-0395  | 3.95 | 0.1555 | 27 | 1.0630 | 55 | ○     |
| V-ADS-0400  | 4.00 | 0.1575 | 27 | 1.0630 | 55 | ○     |
| V-ADS-0405  | 4.05 | 0.1594 | 27 | 1.0630 | 55 | ○     |

● US Stock Item ○ Japan Stock Item

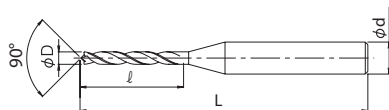
| Product No. | ØD   |        | ℓ  |        | L  | Stock |
|-------------|------|--------|----|--------|----|-------|
|             | mm   | inch   | mm | inch   |    |       |
| V-ADS-0410  | 4.10 | 0.1614 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0415  | 4.15 | 0.1634 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0420  | 4.20 | 0.1654 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0425  | 4.25 | 0.1673 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0430  | 4.30 | 0.1693 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0435  | 4.35 | 0.1713 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0440  | 4.40 | 0.1732 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0445  | 4.45 | 0.1752 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0450  | 4.50 | 0.1772 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0455  | 4.55 | 0.1791 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0460  | 4.60 | 0.1811 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0465  | 4.65 | 0.1831 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0470  | 4.70 | 0.1850 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0475  | 4.75 | 0.1870 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0480  | 4.80 | 0.1890 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0485  | 4.85 | 0.1909 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0490  | 4.90 | 0.1929 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0495  | 4.95 | 0.1949 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0500  | 5.00 | 0.1969 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0505  | 5.05 | 0.1988 | 30 | 1.1811 | 60 | ○     |
| V-ADS-0510  | 5.10 | 0.2008 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0515  | 5.15 | 0.2028 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0520  | 5.20 | 0.2047 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0525  | 5.25 | 0.2067 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0530  | 5.30 | 0.2087 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0535  | 5.35 | 0.2106 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0540  | 5.40 | 0.2126 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0545  | 5.45 | 0.2146 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0550  | 5.50 | 0.2165 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0555  | 5.55 | 0.2185 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0560  | 5.60 | 0.2205 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0565  | 5.65 | 0.2224 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0570  | 5.70 | 0.2244 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0575  | 5.75 | 0.2264 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0580  | 5.80 | 0.2283 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0585  | 5.85 | 0.2303 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0590  | 5.90 | 0.2323 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0595  | 5.95 | 0.2343 | 40 | 1.5748 | 80 | ○     |
| V-ADS-0600  | 6.00 | 0.2362 | 40 | 1.5748 | 80 | ○     |



# SWEEP CUT DRILLS

# ASWR

SWEEP CUT DRILL, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.005 mm

| Product No. | ØD   |        | ℓ   |        | L  | d  | Stock |
|-------------|------|--------|-----|--------|----|----|-------|
|             | mm   | inch   | mm  | inch   | mm | mm |       |
| ASWR-0010   | 0.10 | 0.0039 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ASWR-0011   | 0.11 | 0.0043 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ASWR-0012   | 0.12 | 0.0047 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ASWR-0013   | 0.13 | 0.0051 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ASWR-0014   | 0.14 | 0.0055 | 1.4 | 0.0551 | 38 | 3  | ●     |
| ASWR-0015   | 0.15 | 0.0059 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ASWR-0016   | 0.16 | 0.0063 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ASWR-0017   | 0.17 | 0.0067 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ASWR-0018   | 0.18 | 0.0071 | 2.1 | 0.0827 | 38 | 3  | ●     |
| ASWR-0019   | 0.19 | 0.0075 | 2.1 | 0.0827 | 38 | 3  | ●     |
| ASWR-0020   | 0.20 | 0.0079 | 2.4 | 0.0945 | 38 | 3  | ●     |
| ASWR-0021   | 0.21 | 0.0083 | 2.4 | 0.0945 | 38 | 3  | ●     |
| ASWR-0022   | 0.22 | 0.0087 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ASWR-0023   | 0.23 | 0.0091 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ASWR-0024   | 0.24 | 0.0094 | 2.6 | 0.1024 | 38 | 3  | ●     |
| ASWR-0025   | 0.25 | 0.0098 | 3   | 0.1181 | 38 | 3  | ●     |
| ASWR-0026   | 0.26 | 0.0102 | 3   | 0.1181 | 38 | 3  | ●     |
| ASWR-0027   | 0.27 | 0.0106 | 3   | 0.1181 | 38 | 3  | ●     |
| ASWR-0028   | 0.28 | 0.0110 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ASWR-0029   | 0.29 | 0.0114 | 3.3 | 0.1299 | 38 | 3  | ●     |
| ASWR-0030   | 0.30 | 0.0118 | 5   | 0.1969 | 38 | 3  | ●     |
| ASWR-0035   | 0.35 | 0.0138 | 5   | 0.1969 | 38 | 3  | ●     |
| ASWR-0040   | 0.40 | 0.0157 | 6   | 0.2362 | 38 | 3  | ●     |
| ASWR-0045   | 0.45 | 0.0177 | 6   | 0.2362 | 38 | 3  | ●     |
| ASWR-0050   | 0.50 | 0.0197 | 6   | 0.2362 | 38 | 3  | ●     |
| ASWR-0055   | 0.55 | 0.0217 | 6   | 0.2362 | 38 | 3  | ●     |
| ASWR-0060   | 0.60 | 0.0236 | 7   | 0.2756 | 38 | 3  | ●     |
| ASWR-0065   | 0.65 | 0.0256 | 7   | 0.2756 | 38 | 3  | ●     |
| ASWR-0070   | 0.70 | 0.0276 | 8   | 0.3150 | 38 | 3  | ●     |
| ASWR-0075   | 0.75 | 0.0295 | 8   | 0.3150 | 38 | 3  | ●     |
| ASWR-0080   | 0.80 | 0.0315 | 8   | 0.3150 | 38 | 3  | ●     |
| ASWR-0085   | 0.85 | 0.0335 | 8   | 0.3150 | 38 | 3  | ●     |
| ASWR-0090   | 0.90 | 0.0354 | 8   | 0.3150 | 38 | 3  | ●     |
| ASWR-0095   | 0.95 | 0.0374 | 8   | 0.3150 | 38 | 3  | ●     |
| ASWR-0100   | 1.00 | 0.0394 | 10  | 0.3937 | 38 | 3  | ●     |
| ASWR-0105   | 1.05 | 0.0413 | 10  | 0.3937 | 38 | 3  | ●     |
| ASWR-0110   | 1.10 | 0.0433 | 10  | 0.3937 | 38 | 3  | ●     |
| ASWR-0115   | 1.15 | 0.0453 | 10  | 0.3937 | 38 | 3  | ●     |

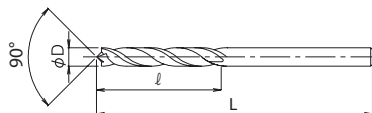
● US Stock Item ○ Japan Stock Item

| Product No. | ØD   |        | ℓ  |        | L  | d  | Stock |
|-------------|------|--------|----|--------|----|----|-------|
|             | mm   | inch   | mm | inch   | mm | mm |       |
| ASWR-0120   | 1.20 | 0.0472 | 10 | 0.3937 | 38 | 3  | ●     |
| ASWR-0125   | 1.25 | 0.0492 | 10 | 0.3937 | 38 | 3  | ●     |
| ASWR-0130   | 1.30 | 0.0512 | 10 | 0.3937 | 38 | 3  | ●     |
| ASWR-0135   | 1.35 | 0.0531 | 10 | 0.3937 | 38 | 3  | ●     |
| ASWR-0140   | 1.40 | 0.0551 | 10 | 0.3937 | 38 | 3  | ●     |
| ASWR-0145   | 1.45 | 0.0571 | 10 | 0.3937 | 38 | 3  | ●     |
| ASWR-0150   | 1.50 | 0.0591 | 15 | 0.5906 | 45 | 3  | ●     |
| ASWR-0155   | 1.55 | 0.0610 | 15 | 0.5906 | 45 | 3  | ●     |
| ASWR-0160   | 1.60 | 0.0630 | 15 | 0.5906 | 45 | 3  | ●     |
| ASWR-0165   | 1.65 | 0.0650 | 15 | 0.5906 | 45 | 3  | ●     |
| ASWR-0170   | 1.70 | 0.0669 | 15 | 0.5906 | 45 | 3  | ●     |
| ASWR-0175   | 1.75 | 0.0689 | 15 | 0.5906 | 45 | 3  | ●     |
| ASWR-0180   | 1.80 | 0.0709 | 15 | 0.5906 | 45 | 3  | ●     |
| ASWR-0185   | 1.85 | 0.0728 | 15 | 0.5906 | 45 | 3  | ●     |
| ASWR-0190   | 1.90 | 0.0748 | 15 | 0.5906 | 45 | 3  | ●     |
| ASWR-0195   | 1.95 | 0.0768 | 15 | 0.5906 | 45 | 3  | ●     |
| ASWR-0200   | 2.00 | 0.0787 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0205   | 2.05 | 0.0807 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0210   | 2.10 | 0.0827 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0215   | 2.15 | 0.0846 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0220   | 2.20 | 0.0866 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0225   | 2.25 | 0.0886 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0230   | 2.30 | 0.0906 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0235   | 2.35 | 0.0925 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0240   | 2.40 | 0.0945 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0245   | 2.45 | 0.0965 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0250   | 2.50 | 0.0984 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0255   | 2.55 | 0.1004 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0260   | 2.60 | 0.1024 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0265   | 2.65 | 0.1043 | 22 | 0.8661 | 50 | 3  | ●     |
| ASWR-0270   | 2.70 | 0.1063 | 25 | 0.9843 | 50 | 3  | ●     |
| ASWR-0275   | 2.75 | 0.1083 | 25 | 0.9843 | 50 | 3  | ●     |
| ASWR-0280   | 2.80 | 0.1102 | 25 | 0.9843 | 50 | 3  | ●     |
| ASWR-0285   | 2.85 | 0.1122 | 25 | 0.9843 | 50 | 3  | ●     |
| ASWR-0290   | 2.90 | 0.1142 | 25 | 0.9843 | 50 | 3  | ●     |
| ASWR-0295   | 2.95 | 0.1161 | 25 | 0.9843 | 50 | 3  | ●     |
| ASWR-0300   | 3.00 | 0.1181 | 25 | 0.9843 | 50 | 3  | ●     |

# SWEEP CUT DRILLS

## ASWD

SWEEP CUT DRILL, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
+0/-0.01 mm

| Product No. | ØD   |        | ℓ  |        | L      | Stock |
|-------------|------|--------|----|--------|--------|-------|
|             | mm   | inch   | mm | inch   | mm     |       |
| ASWD-0100   | 1.00 | 0.0394 | 16 | 0.6299 | 50     | ●     |
| ASWD-0110   | 1.10 | 0.0433 | 16 | 0.6299 | 50     | ●     |
| ASWD-0120   | 1.20 | 0.0472 | 18 | 0.7087 | 50     | ●     |
| ASWD-0130   | 1.30 | 0.0512 | 18 | 0.7087 | 50     | ●     |
| ASWD-0140   | 1.40 | 0.0551 | 18 | 0.7087 | 50     | ●     |
| ASWD-0150   | 1.50 | 0.0591 | 24 | 0.9449 | 55     | ●     |
| ASWD-0160   | 1.60 | 0.0630 | 24 | 0.9449 | 55     | ●     |
| ASWD-0170   | 1.70 | 0.0669 | 24 | 0.9449 | 55     | ●     |
| ASWD-0180   | 1.80 | 0.0709 | 24 | 0.9449 | 55     | ●     |
| ASWD-0190   | 1.90 | 0.0748 | 24 | 0.9449 | 55     | ●     |
| ASWD-0200   | 2.00 | 0.0787 | 24 | 0.9449 | 55     | ●     |
| ASWD-0210   | 2.10 | 0.0827 | 24 | 0.9449 | 55     | ●     |
| ASWD-0220   | 2.20 | 0.0866 | 26 | 1.0236 | 58(65) | ●     |
| ASWD-0230   | 2.30 | 0.0906 | 26 | 1.0236 | 58(65) | ●     |

| Product No. | ØD   |        | ℓ  |        | L        | Stock |
|-------------|------|--------|----|--------|----------|-------|
|             | mm   | inch   | mm | inch   | mm       |       |
| ASWD-0240   | 2.40 | 0.0945 | 26 | 1.0236 | 61(65)   | ●     |
| ASWD-0250   | 2.50 | 0.0984 | 26 | 1.0236 | 61(65)   | ●     |
| ASWD-0260   | 2.60 | 0.1024 | 28 | 1.1024 | 64(65)   | ●     |
| ASWD-0270   | 2.70 | 0.1063 | 28 | 1.1024 | 64(65)   | ●     |
| ASWD-0280   | 2.80 | 0.1102 | 30 | 1.1811 | 67(75)   | ●     |
| ASWD-0290   | 2.90 | 0.1142 | 30 | 1.1811 | 71(75)   | ●     |
| ASWD-0300   | 3.00 | 0.1181 | 30 | 1.1811 | 71(75)   | ●     |
| ASWD-0350   | 3.50 | 0.1378 | 35 | 1.3780 | 73(75)   | ○     |
| ASWD-0400   | 4.00 | 0.1575 | 40 | 1.5748 | 83(90)   | ○     |
| ASWD-0450   | 4.50 | 0.1772 | 42 | 1.6535 | 86(90)   | ○     |
| ASWD-0500   | 5.00 | 0.1969 | 45 | 1.7717 | 92(100)  | ○     |
| ASWD-0550   | 5.50 | 0.2165 | 45 | 1.7717 | 95(100)  | ○     |
| ASWD-0600   | 6.00 | 0.2362 | 50 | 1.9685 | 102(110) | ○     |

● US Stock Item ○ Japan Stock Item

\* Overall length is being changed to figures in parentheses.

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
|               |              |             |                  |           | ◎               | ○             |               |                 |                 | ◎        |

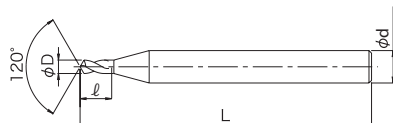
◎ Best ○ Good △ OK

## ADPF30

GUIDE HOLE DRILL, FOR FERROUS MATERIALS



Ø0.3-0.95 mm



ØD Tolerance:  
 -0.006 / -0.008 mm (Ø0.02 mm) -0.01 / -0.015 mm (≥ Ø0.1 mm)  
 -0.005 / -0.01 mm (Ø0.03-0.09 mm)

| Product No. | ØD   |        | ℓ    |        | L  | d  | Stock |
|-------------|------|--------|------|--------|----|----|-------|
|             | mm   | inch   | mm   | inch   | mm | mm |       |
| ADPF30-0002 | 0.02 | 0.0008 | 0.04 | 0.0016 | 38 | 3  | ●     |
| ADPF30-0003 | 0.03 | 0.0012 | 0.06 | 0.0024 | 38 | 3  | ●     |
| ADPF30-0004 | 0.04 | 0.0016 | 0.08 | 0.0031 | 38 | 3  | ●     |
| ADPF30-0005 | 0.05 | 0.0020 | 0.1  | 0.0039 | 38 | 3  | ●     |
| ADPF30-0006 | 0.06 | 0.0024 | 0.1  | 0.0039 | 38 | 3  | ●     |
| ADPF30-0007 | 0.07 | 0.0028 | 0.1  | 0.0039 | 38 | 3  | ●     |
| ADPF30-0008 | 0.08 | 0.0031 | 0.1  | 0.0039 | 38 | 3  | ●     |
| ADPF30-0009 | 0.09 | 0.0035 | 0.1  | 0.0039 | 38 | 3  | ●     |
| ADPF30-0010 | 0.10 | 0.0039 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPF30-0011 | 0.11 | 0.0043 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPF30-0012 | 0.12 | 0.0047 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPF30-0013 | 0.13 | 0.0051 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPF30-0014 | 0.14 | 0.0055 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPF30-0015 | 0.15 | 0.0059 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPF30-0016 | 0.16 | 0.0063 | 0.3  | 0.0118 | 38 | 3  | ●     |
| ADPF30-0017 | 0.17 | 0.0067 | 0.3  | 0.0118 | 38 | 3  | ●     |
| ADPF30-0018 | 0.18 | 0.0071 | 0.3  | 0.0118 | 38 | 3  | ●     |
| ADPF30-0019 | 0.19 | 0.0075 | 0.3  | 0.0118 | 38 | 3  | ●     |
| ADPF30-0020 | 0.20 | 0.0079 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPF30-0021 | 0.21 | 0.0083 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPF30-0022 | 0.22 | 0.0087 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPF30-0023 | 0.23 | 0.0091 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPF30-0024 | 0.24 | 0.0094 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPF30-0025 | 0.25 | 0.0098 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPF30-0026 | 0.26 | 0.0102 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPF30-0027 | 0.27 | 0.0106 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPF30-0028 | 0.28 | 0.0110 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPF30-0029 | 0.29 | 0.0114 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPF30-0030 | 0.30 | 0.0118 | 0.6  | 0.0236 | 38 | 3  | ●     |
| ADPF30-0035 | 0.35 | 0.0138 | 0.6  | 0.0236 | 38 | 3  | ●     |
| ADPF30-0040 | 0.40 | 0.0157 | 0.6  | 0.0236 | 38 | 3  | ●     |
| ADPF30-0045 | 0.45 | 0.0177 | 0.6  | 0.0236 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Product No. | ØD   |        | ℓ   |        | L  | d  | Stock |
|-------------|------|--------|-----|--------|----|----|-------|
|             | mm   | inch   | mm  | inch   | mm | mm |       |
| ADPF30-0050 | 0.50 | 0.0197 | 1   | 0.0394 | 38 | 3  | ●     |
| ADPF30-0055 | 0.55 | 0.0217 | 1   | 0.0394 | 38 | 3  | ●     |
| ADPF30-0060 | 0.60 | 0.0236 | 1   | 0.0394 | 38 | 3  | ●     |
| ADPF30-0065 | 0.65 | 0.0256 | 1   | 0.0394 | 38 | 3  | ●     |
| ADPF30-0070 | 0.70 | 0.0276 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADPF30-0075 | 0.75 | 0.0295 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADPF30-0080 | 0.80 | 0.0315 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADPF30-0085 | 0.85 | 0.0335 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADPF30-0090 | 0.90 | 0.0354 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADPF30-0095 | 0.95 | 0.0374 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADPF30-0100 | 1.00 | 0.0394 | 2   | 0.0787 | 38 | 3  | ●     |
| ADPF30-0110 | 1.10 | 0.0433 | 2   | 0.0787 | 38 | 3  | ●     |
| ADPF30-0120 | 1.20 | 0.0472 | 2   | 0.0787 | 38 | 3  | ●     |
| ADPF30-0130 | 1.30 | 0.0512 | 3   | 0.1181 | 38 | 3  | ●     |
| ADPF30-0140 | 1.40 | 0.0551 | 3   | 0.1181 | 38 | 3  | ●     |
| ADPF30-0150 | 1.50 | 0.0591 | 3   | 0.1181 | 38 | 3  | ●     |
| ADPF30-0160 | 1.60 | 0.0630 | 3   | 0.1181 | 38 | 3  | ●     |
| ADPF30-0170 | 1.70 | 0.0669 | 3   | 0.1181 | 38 | 3  | ●     |
| ADPF30-0180 | 1.80 | 0.0709 | 4   | 0.1575 | 38 | 3  | ●     |
| ADPF30-0190 | 1.90 | 0.0748 | 4   | 0.1575 | 38 | 3  | ●     |
| ADPF30-0200 | 2.00 | 0.0787 | 4   | 0.1575 | 38 | 3  | ●     |
| ADPF30-0210 | 2.10 | 0.0827 | 4   | 0.1575 | 38 | 3  | ●     |
| ADPF30-0220 | 2.20 | 0.0866 | 4   | 0.1575 | 38 | 3  | ●     |
| ADPF30-0230 | 2.30 | 0.0906 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPF30-0240 | 2.40 | 0.0945 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPF30-0250 | 2.50 | 0.0984 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPF30-0260 | 2.60 | 0.1024 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPF30-0270 | 2.70 | 0.1063 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPF30-0280 | 2.80 | 0.1102 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPF30-0290 | 2.90 | 0.1142 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPF30-0300 | 3.00 | 0.1181 | 5   | 0.1969 | 38 | 3  | ●     |

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ◎             | ◎            | ◎           | ◎                | ◎         |                 |               |               | ◎               | ◎               |          |

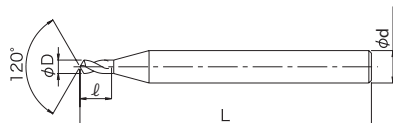
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## V-ADPF30

GUIDE HOLE DRILL, TiAlN COATED, FOR FERROUS MATERIALS



Ø0.3-0.95 mm



ØD Tolerance:

-0.003 / -0.006 mm (Ø0.02 mm)      -0.007 / -0.014 mm (Ø0.1-0.29 mm)  
 -0.002 / -0.009 mm (Ø0.03-0.09 mm)      -0.005 / -0.013 mm (≥ Ø0.3 mm)

| Product No.   | ØD   |        | ℓ    |        | L  | d  | Stock |
|---------------|------|--------|------|--------|----|----|-------|
|               | mm   | inch   | mm   | inch   | mm | mm |       |
| V-ADPF30-0002 | 0.02 | 0.0008 | 0.04 | 0.0016 | 38 | 3  | ○     |
| V-ADPF30-0003 | 0.03 | 0.0012 | 0.06 | 0.0024 | 38 | 3  | ○     |
| V-ADPF30-0004 | 0.04 | 0.0016 | 0.08 | 0.0031 | 38 | 3  | ○     |
| V-ADPF30-0005 | 0.05 | 0.0020 | 0.1  | 0.0039 | 38 | 3  | ○     |
| V-ADPF30-0006 | 0.06 | 0.0024 | 0.1  | 0.0039 | 38 | 3  | ○     |
| V-ADPF30-0007 | 0.07 | 0.0028 | 0.1  | 0.0039 | 38 | 3  | ○     |
| V-ADPF30-0008 | 0.08 | 0.0031 | 0.1  | 0.0039 | 38 | 3  | ○     |
| V-ADPF30-0009 | 0.09 | 0.0035 | 0.1  | 0.0039 | 38 | 3  | ○     |
| V-ADPF30-0010 | 0.10 | 0.0039 | 0.2  | 0.0079 | 38 | 3  | ○     |
| V-ADPF30-0011 | 0.11 | 0.0043 | 0.2  | 0.0079 | 38 | 3  | ○     |
| V-ADPF30-0012 | 0.12 | 0.0047 | 0.2  | 0.0079 | 38 | 3  | ○     |
| V-ADPF30-0013 | 0.13 | 0.0051 | 0.2  | 0.0079 | 38 | 3  | ○     |
| V-ADPF30-0014 | 0.14 | 0.0055 | 0.2  | 0.0079 | 38 | 3  | ○     |
| V-ADPF30-0015 | 0.15 | 0.0059 | 0.2  | 0.0079 | 38 | 3  | ○     |
| V-ADPF30-0016 | 0.16 | 0.0063 | 0.3  | 0.0118 | 38 | 3  | ○     |
| V-ADPF30-0017 | 0.17 | 0.0067 | 0.3  | 0.0118 | 38 | 3  | ○     |
| V-ADPF30-0018 | 0.18 | 0.0071 | 0.3  | 0.0118 | 38 | 3  | ○     |
| V-ADPF30-0019 | 0.19 | 0.0075 | 0.3  | 0.0118 | 38 | 3  | ○     |
| V-ADPF30-0020 | 0.20 | 0.0079 | 0.4  | 0.0157 | 38 | 3  | ○     |
| V-ADPF30-0021 | 0.21 | 0.0083 | 0.4  | 0.0157 | 38 | 3  | ○     |
| V-ADPF30-0022 | 0.22 | 0.0087 | 0.4  | 0.0157 | 38 | 3  | ○     |
| V-ADPF30-0023 | 0.23 | 0.0091 | 0.4  | 0.0157 | 38 | 3  | ○     |
| V-ADPF30-0024 | 0.24 | 0.0094 | 0.4  | 0.0157 | 38 | 3  | ○     |
| V-ADPF30-0025 | 0.25 | 0.0098 | 0.4  | 0.0157 | 38 | 3  | ○     |
| V-ADPF30-0026 | 0.26 | 0.0102 | 0.4  | 0.0157 | 38 | 3  | ○     |
| V-ADPF30-0027 | 0.27 | 0.0106 | 0.4  | 0.0157 | 38 | 3  | ○     |
| V-ADPF30-0028 | 0.28 | 0.0110 | 0.4  | 0.0157 | 38 | 3  | ○     |
| V-ADPF30-0029 | 0.29 | 0.0114 | 0.4  | 0.0157 | 38 | 3  | ○     |
| V-ADPF30-0030 | 0.30 | 0.0118 | 0.6  | 0.0236 | 38 | 3  | ○     |
| V-ADPF30-0035 | 0.35 | 0.0138 | 0.6  | 0.0236 | 38 | 3  | ○     |
| V-ADPF30-0040 | 0.40 | 0.0157 | 0.6  | 0.0236 | 38 | 3  | ○     |
| V-ADPF30-0045 | 0.45 | 0.0177 | 0.6  | 0.0236 | 38 | 3  | ○     |

● US Stock Item ○ Japan Stock Item

| Product No.   | ØD   |        | ℓ   |        | L  | d  | Stock |
|---------------|------|--------|-----|--------|----|----|-------|
|               | mm   | inch   | mm  | inch   | mm | mm |       |
| V-ADPF30-0050 | 0.50 | 0.0197 | 1   | 0.0394 | 38 | 3  | ○     |
| V-ADPF30-0055 | 0.55 | 0.0217 | 1   | 0.0394 | 38 | 3  | ○     |
| V-ADPF30-0060 | 0.60 | 0.0236 | 1   | 0.0394 | 38 | 3  | ○     |
| V-ADPF30-0065 | 0.65 | 0.0256 | 1   | 0.0394 | 38 | 3  | ○     |
| V-ADPF30-0070 | 0.70 | 0.0276 | 1.2 | 0.0472 | 38 | 3  | ○     |
| V-ADPF30-0075 | 0.75 | 0.0295 | 1.2 | 0.0472 | 38 | 3  | ○     |
| V-ADPF30-0080 | 0.80 | 0.0315 | 1.2 | 0.0472 | 38 | 3  | ○     |
| V-ADPF30-0085 | 0.85 | 0.0335 | 1.2 | 0.0472 | 38 | 3  | ○     |
| V-ADPF30-0090 | 0.90 | 0.0354 | 1.8 | 0.0709 | 38 | 3  | ○     |
| V-ADPF30-0095 | 0.95 | 0.0374 | 1.8 | 0.0709 | 38 | 3  | ○     |
| V-ADPF30-0100 | 1.00 | 0.0394 | 2   | 0.0787 | 38 | 3  | ○     |
| V-ADPF30-0110 | 1.10 | 0.0433 | 2   | 0.0787 | 38 | 3  | ○     |
| V-ADPF30-0120 | 1.20 | 0.0472 | 2   | 0.0787 | 38 | 3  | ○     |
| V-ADPF30-0130 | 1.30 | 0.0512 | 3   | 0.1181 | 38 | 3  | ○     |
| V-ADPF30-0140 | 1.40 | 0.0551 | 3   | 0.1181 | 38 | 3  | ○     |
| V-ADPF30-0150 | 1.50 | 0.0591 | 3   | 0.1181 | 38 | 3  | ○     |
| V-ADPF30-0160 | 1.60 | 0.0630 | 3   | 0.1181 | 38 | 3  | ○     |
| V-ADPF30-0170 | 1.70 | 0.0669 | 3   | 0.1181 | 38 | 3  | ○     |
| V-ADPF30-0180 | 1.80 | 0.0709 | 4   | 0.1575 | 38 | 3  | ○     |
| V-ADPF30-0190 | 1.90 | 0.0748 | 4   | 0.1575 | 38 | 3  | ○     |
| V-ADPF30-0200 | 2.00 | 0.0787 | 4   | 0.1575 | 38 | 3  | ○     |
| V-ADPF30-0210 | 2.10 | 0.0827 | 4   | 0.1575 | 38 | 3  | ○     |
| V-ADPF30-0220 | 2.20 | 0.0866 | 4   | 0.1575 | 38 | 3  | ○     |
| V-ADPF30-0230 | 2.30 | 0.0906 | 5   | 0.1969 | 38 | 3  | ○     |
| V-ADPF30-0240 | 2.40 | 0.0945 | 5   | 0.1969 | 38 | 3  | ○     |
| V-ADPF30-0250 | 2.50 | 0.0984 | 5   | 0.1969 | 38 | 3  | ○     |
| V-ADPF30-0260 | 2.60 | 0.1024 | 5   | 0.1969 | 38 | 3  | ○     |
| V-ADPF30-0270 | 2.70 | 0.1063 | 5   | 0.1969 | 38 | 3  | ○     |
| V-ADPF30-0280 | 2.80 | 0.1102 | 5   | 0.1969 | 38 | 3  | ○     |
| V-ADPF30-0290 | 2.90 | 0.1142 | 5   | 0.1969 | 38 | 3  | ○     |
| V-ADPF30-0300 | 3.00 | 0.1181 | 5   | 0.1969 | 38 | 3  | ○     |

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ◎             | ◎            | ◎           | ◎                | ◎         |                 |               | ○             | ◎               | ◎               |          |

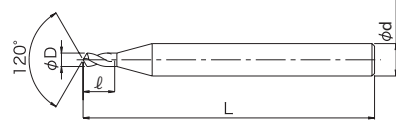
◎ Best ○ Good △ OK

## ADPN30

GUIDE HOLE DRILL, FOR NON-FERROUS MATERIALS



Ø0.3-0.95 mm



ØD Tolerance:  
 -0.006 / -0.008 mm (Ø0.02 mm)      -0.01 / -0.015 mm (≥ Ø0.1 mm)  
 -0.005 / -0.01 mm (Ø0.03-0.09 mm)

| Product No. | ØD   |        | ℓ    |        | L  | d  | Stock |
|-------------|------|--------|------|--------|----|----|-------|
|             | mm   | inch   | mm   | inch   | mm | mm |       |
| ADPN30-0002 | 0.02 | 0.0008 | 0.04 | 0.0016 | 38 | 3  | ●     |
| ADPN30-0003 | 0.03 | 0.0012 | 0.06 | 0.0024 | 38 | 3  | ●     |
| ADPN30-0004 | 0.04 | 0.0016 | 0.08 | 0.0031 | 38 | 3  | ●     |
| ADPN30-0005 | 0.05 | 0.0020 | 0.1  | 0.0039 | 38 | 3  | ●     |
| ADPN30-0006 | 0.06 | 0.0024 | 0.1  | 0.0039 | 38 | 3  | ●     |
| ADPN30-0007 | 0.07 | 0.0028 | 0.1  | 0.0039 | 38 | 3  | ●     |
| ADPN30-0008 | 0.08 | 0.0031 | 0.1  | 0.0039 | 38 | 3  | ●     |
| ADPN30-0009 | 0.09 | 0.0035 | 0.1  | 0.0039 | 38 | 3  | ●     |
| ADPN30-0010 | 0.10 | 0.0039 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPN30-0011 | 0.11 | 0.0043 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPN30-0012 | 0.12 | 0.0047 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPN30-0013 | 0.13 | 0.0051 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPN30-0014 | 0.14 | 0.0055 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPN30-0015 | 0.15 | 0.0059 | 0.2  | 0.0079 | 38 | 3  | ●     |
| ADPN30-0016 | 0.16 | 0.0063 | 0.3  | 0.0118 | 38 | 3  | ●     |
| ADPN30-0017 | 0.17 | 0.0067 | 0.3  | 0.0118 | 38 | 3  | ●     |
| ADPN30-0018 | 0.18 | 0.0071 | 0.3  | 0.0118 | 38 | 3  | ●     |
| ADPN30-0019 | 0.19 | 0.0075 | 0.3  | 0.0118 | 38 | 3  | ●     |
| ADPN30-0020 | 0.20 | 0.0079 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPN30-0021 | 0.21 | 0.0083 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPN30-0022 | 0.22 | 0.0087 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPN30-0023 | 0.23 | 0.0091 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPN30-0024 | 0.24 | 0.0094 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPN30-0025 | 0.25 | 0.0098 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPN30-0026 | 0.26 | 0.0102 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPN30-0027 | 0.27 | 0.0106 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPN30-0028 | 0.28 | 0.0110 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPN30-0029 | 0.29 | 0.0114 | 0.4  | 0.0157 | 38 | 3  | ●     |
| ADPN30-0030 | 0.30 | 0.0118 | 0.6  | 0.0236 | 38 | 3  | ●     |
| ADPN30-0035 | 0.35 | 0.0138 | 0.6  | 0.0236 | 38 | 3  | ●     |
| ADPN30-0040 | 0.40 | 0.0157 | 0.6  | 0.0236 | 38 | 3  | ●     |
| ADPN30-0045 | 0.45 | 0.0177 | 0.6  | 0.0236 | 38 | 3  | ●     |

● US Stock Item ○ Japan Stock Item

| Product No. | ØD   |        | ℓ   |        | L  | d  | Stock |
|-------------|------|--------|-----|--------|----|----|-------|
|             | mm   | inch   | mm  | inch   | mm | mm |       |
| ADPN30-0050 | 0.50 | 0.0197 | 1   | 0.0394 | 38 | 3  | ●     |
| ADPN30-0055 | 0.55 | 0.0217 | 1   | 0.0394 | 38 | 3  | ●     |
| ADPN30-0060 | 0.60 | 0.0236 | 1   | 0.0394 | 38 | 3  | ●     |
| ADPN30-0065 | 0.65 | 0.0256 | 1   | 0.0394 | 38 | 3  | ●     |
| ADPN30-0070 | 0.70 | 0.0276 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADPN30-0075 | 0.75 | 0.0295 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADPN30-0080 | 0.80 | 0.0315 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADPN30-0085 | 0.85 | 0.0335 | 1.2 | 0.0472 | 38 | 3  | ●     |
| ADPN30-0090 | 0.90 | 0.0354 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADPN30-0095 | 0.95 | 0.0374 | 1.8 | 0.0709 | 38 | 3  | ●     |
| ADPN30-0100 | 1.00 | 0.0394 | 2   | 0.0787 | 38 | 3  | ●     |
| ADPN30-0110 | 1.10 | 0.0433 | 2   | 0.0787 | 38 | 3  | ●     |
| ADPN30-0120 | 1.20 | 0.0472 | 2   | 0.0787 | 38 | 3  | ●     |
| ADPN30-0120 | 1.30 | 0.0512 | 3   | 0.1181 | 38 | 3  | ●     |
| ADPN30-0140 | 1.40 | 0.0551 | 3   | 0.1181 | 38 | 3  | ●     |
| ADPN30-0150 | 1.50 | 0.0591 | 3   | 0.1181 | 38 | 3  | ●     |
| ADPN30-0160 | 1.60 | 0.0630 | 3   | 0.1181 | 38 | 3  | ●     |
| ADPN30-0170 | 1.70 | 0.0669 | 3   | 0.1181 | 38 | 3  | ●     |
| ADPN30-0180 | 1.80 | 0.0709 | 4   | 0.1575 | 38 | 3  | ●     |
| ADPN30-0190 | 1.90 | 0.0748 | 4   | 0.1575 | 38 | 3  | ●     |
| ADPN30-0200 | 2.00 | 0.0787 | 4   | 0.1575 | 38 | 3  | ●     |
| ADPN30-0210 | 2.10 | 0.0827 | 4   | 0.1575 | 38 | 3  | ●     |
| ADPN30-0220 | 2.20 | 0.0866 | 4   | 0.1575 | 38 | 3  | ●     |
| ADPN30-0230 | 2.30 | 0.0906 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPN30-0240 | 2.40 | 0.0945 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPN30-0250 | 2.50 | 0.0984 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPN30-0260 | 2.60 | 0.1024 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPN30-0270 | 2.70 | 0.1063 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPN30-0280 | 2.80 | 0.1102 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPN30-0290 | 2.90 | 0.1142 | 5   | 0.1969 | 38 | 3  | ●     |
| ADPN30-0300 | 3.00 | 0.1181 | 5   | 0.1969 | 38 | 3  | ●     |

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
|               |              |             |                  |           | ○               | ○             |               |                 |                 | ○        |

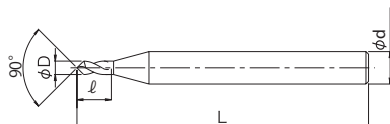
○ Best ○ Good △ OK

## ADPF309

GUIDE HOLE DRILL, 90 POINT, FOR FERROUS MATERIALS



Ø0.3-0.95 mm



ØD Tolerance:  
-0.005 / -0.01 mm (Ø0.03-0.09 mm)  
-0.01 / -0.015 mm (≥ Ø0.1 mm)

| Product No.  | ØD   |        | ℓ    |        | L  | d  | Stock |
|--------------|------|--------|------|--------|----|----|-------|
|              | mm   | inch   | mm   | inch   | mm | mm |       |
| ADPF309-0003 | 0.03 | 0.0012 | 0.06 | 0.0024 | 38 | 3  | ○     |
| ADPF309-0004 | 0.04 | 0.0016 | 0.08 | 0.0031 | 38 | 3  | ○     |
| ADPF309-0005 | 0.05 | 0.0020 | 0.1  | 0.0039 | 38 | 3  | ○     |
| ADPF309-0006 | 0.06 | 0.0024 | 0.1  | 0.0039 | 38 | 3  | ○     |
| ADPF309-0007 | 0.07 | 0.0028 | 0.1  | 0.0039 | 38 | 3  | ○     |
| ADPF309-0008 | 0.08 | 0.0031 | 0.1  | 0.0039 | 38 | 3  | ○     |
| ADPF309-0009 | 0.09 | 0.0035 | 0.1  | 0.0039 | 38 | 3  | ○     |
| ADPF309-0010 | 0.10 | 0.0039 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPF309-0011 | 0.11 | 0.0043 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPF309-0012 | 0.12 | 0.0047 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPF309-0013 | 0.13 | 0.0051 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPF309-0014 | 0.14 | 0.0055 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPF309-0015 | 0.15 | 0.0059 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPF309-0016 | 0.16 | 0.0063 | 0.3  | 0.0118 | 38 | 3  | ○     |
| ADPF309-0017 | 0.17 | 0.0067 | 0.3  | 0.0118 | 38 | 3  | ○     |
| ADPF309-0018 | 0.18 | 0.0071 | 0.3  | 0.0118 | 38 | 3  | ○     |
| ADPF309-0019 | 0.19 | 0.0075 | 0.3  | 0.0118 | 38 | 3  | ○     |
| ADPF309-0020 | 0.20 | 0.0079 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPF309-0021 | 0.21 | 0.0083 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPF309-0022 | 0.22 | 0.0087 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPF309-0023 | 0.23 | 0.0091 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPF309-0024 | 0.24 | 0.0094 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPF309-0025 | 0.25 | 0.0098 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPF309-0026 | 0.26 | 0.0102 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPF309-0027 | 0.27 | 0.0106 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPF309-0028 | 0.28 | 0.0110 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPF309-0029 | 0.29 | 0.0114 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPF309-0030 | 0.30 | 0.0118 | 0.6  | 0.0236 | 38 | 3  | ○     |
| ADPF309-0035 | 0.35 | 0.0138 | 0.6  | 0.0236 | 38 | 3  | ○     |
| ADPF309-0040 | 0.40 | 0.0157 | 0.6  | 0.0236 | 38 | 3  | ○     |
| ADPF309-0045 | 0.45 | 0.0177 | 0.6  | 0.0236 | 38 | 3  | ○     |
| ADPF309-0050 | 0.50 | 0.0197 | 1    | 0.0394 | 38 | 3  | ○     |

| Product No.  | ØD   |        | ℓ   |        | L  | d  | Stock |
|--------------|------|--------|-----|--------|----|----|-------|
|              | mm   | inch   | mm  | inch   | mm | mm |       |
| ADPF309-0055 | 0.55 | 0.0217 | 1   | 0.0394 | 38 | 3  | ○     |
| ADPF309-0060 | 0.60 | 0.0236 | 1   | 0.0394 | 38 | 3  | ○     |
| ADPF309-0065 | 0.65 | 0.0256 | 1   | 0.0394 | 38 | 3  | ○     |
| ADPF309-0070 | 0.70 | 0.0276 | 1.2 | 0.0472 | 38 | 3  | ○     |
| ADPF309-0075 | 0.75 | 0.0295 | 1.2 | 0.0472 | 38 | 3  | ○     |
| ADPF309-0080 | 0.80 | 0.0315 | 1.2 | 0.0472 | 38 | 3  | ○     |
| ADPF309-0085 | 0.85 | 0.0335 | 1.2 | 0.0472 | 38 | 3  | ○     |
| ADPF309-0090 | 0.90 | 0.0354 | 1.8 | 0.0709 | 38 | 3  | ○     |
| ADPF309-0095 | 0.95 | 0.0374 | 1.8 | 0.0709 | 38 | 3  | ○     |
| ADPF309-0100 | 1.00 | 0.0394 | 2   | 0.0787 | 38 | 3  | ○     |
| ADPF309-0110 | 1.10 | 0.0433 | 2   | 0.0787 | 38 | 3  | ○     |
| ADPF309-0120 | 1.20 | 0.0472 | 2   | 0.0787 | 38 | 3  | ○     |
| ADPF309-0130 | 1.30 | 0.0512 | 3   | 0.1181 | 38 | 3  | ○     |
| ADPF309-0140 | 1.40 | 0.0551 | 3   | 0.1181 | 38 | 3  | ○     |
| ADPF309-0150 | 1.50 | 0.0591 | 3   | 0.1181 | 38 | 3  | ○     |
| ADPF309-0160 | 1.60 | 0.0630 | 3   | 0.1181 | 38 | 3  | ○     |
| ADPF309-0170 | 1.70 | 0.0669 | 3   | 0.1181 | 38 | 3  | ○     |
| ADPF309-0180 | 1.80 | 0.0709 | 4   | 0.1575 | 38 | 3  | ○     |
| ADPF309-0190 | 1.90 | 0.0748 | 4   | 0.1575 | 38 | 3  | ○     |
| ADPF309-0200 | 2.00 | 0.0787 | 4   | 0.1575 | 38 | 3  | ○     |
| ADPF309-0210 | 2.10 | 0.0827 | 4   | 0.1575 | 38 | 3  | ○     |
| ADPF309-0220 | 2.20 | 0.0866 | 4   | 0.1575 | 38 | 3  | ○     |
| ADPF309-0230 | 2.30 | 0.0906 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPF309-0240 | 2.40 | 0.0945 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPF309-0250 | 2.50 | 0.0984 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPF309-0260 | 2.60 | 0.1024 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPF309-0270 | 2.70 | 0.1063 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPF309-0280 | 2.80 | 0.1102 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPF309-0290 | 2.90 | 0.1142 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPF309-0300 | 3.00 | 0.1181 | 5   | 0.1969 | 38 | 3  | ○     |

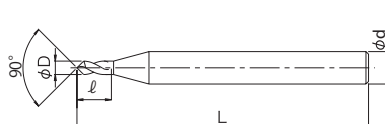
● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
| ◎             | ◎            | ◎           | ◎                | ◎         |                 |               |               | ◎               | ◎               |          |

◎ Best ○ Good △ OK

## ADPN309

GUIDE HOLE DRILL, 90 POINT, FOR NON-FERROUS MATERIALS



ØD Tolerance:  
-0.005 / -0.01 mm (Ø0.03-0.09 mm)  
-0.01 / -0.015 mm (≥ Ø0.1 mm)

| Product No.  | ØD   |        | ℓ    |        | L  | d  | Stock |
|--------------|------|--------|------|--------|----|----|-------|
|              | mm   | inch   | mm   | inch   | mm | mm |       |
| ADPN309-0003 | 0.03 | 0.0012 | 0.06 | 0.0024 | 38 | 3  | ○     |
| ADPN309-0004 | 0.04 | 0.0016 | 0.08 | 0.0031 | 38 | 3  | ○     |
| ADPN309-0005 | 0.05 | 0.0020 | 0.1  | 0.0039 | 38 | 3  | ○     |
| ADPN309-0006 | 0.06 | 0.0024 | 0.1  | 0.0039 | 38 | 3  | ○     |
| ADPN309-0007 | 0.07 | 0.0028 | 0.1  | 0.0039 | 38 | 3  | ○     |
| ADPN309-0008 | 0.08 | 0.0031 | 0.1  | 0.0039 | 38 | 3  | ○     |
| ADPN309-0009 | 0.09 | 0.0035 | 0.1  | 0.0039 | 38 | 3  | ○     |
| ADPN309-0010 | 0.10 | 0.0039 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPN309-0011 | 0.11 | 0.0043 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPN309-0012 | 0.12 | 0.0047 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPN309-0013 | 0.13 | 0.0051 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPN309-0014 | 0.14 | 0.0055 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPN309-0015 | 0.15 | 0.0059 | 0.2  | 0.0079 | 38 | 3  | ○     |
| ADPN309-0016 | 0.16 | 0.0063 | 0.3  | 0.0118 | 38 | 3  | ○     |
| ADPN309-0017 | 0.17 | 0.0067 | 0.3  | 0.0118 | 38 | 3  | ○     |
| ADPN309-0018 | 0.18 | 0.0071 | 0.3  | 0.0118 | 38 | 3  | ○     |
| ADPN309-0019 | 0.19 | 0.0075 | 0.3  | 0.0118 | 38 | 3  | ○     |
| ADPN309-0020 | 0.20 | 0.0079 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPN309-0021 | 0.21 | 0.0083 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPN309-0022 | 0.22 | 0.0087 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPN309-0023 | 0.23 | 0.0091 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPN309-0024 | 0.24 | 0.0094 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPN309-0025 | 0.25 | 0.0098 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPN309-0026 | 0.26 | 0.0102 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPN309-0027 | 0.27 | 0.0106 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPN309-0028 | 0.28 | 0.0110 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPN309-0029 | 0.29 | 0.0114 | 0.4  | 0.0157 | 38 | 3  | ○     |
| ADPN309-0030 | 0.30 | 0.0118 | 0.6  | 0.0236 | 38 | 3  | ○     |
| ADPN309-0035 | 0.35 | 0.0138 | 0.6  | 0.0236 | 38 | 3  | ○     |
| ADPN309-0040 | 0.40 | 0.0157 | 0.6  | 0.0236 | 38 | 3  | ○     |
| ADPN309-0045 | 0.45 | 0.0177 | 0.6  | 0.0236 | 38 | 3  | ○     |
| ADPN309-0050 | 0.50 | 0.0197 | 1    | 0.0394 | 38 | 3  | ○     |

| Product No.  | ØD   |        | ℓ   |        | L  | d  | Stock |
|--------------|------|--------|-----|--------|----|----|-------|
|              | mm   | inch   | mm  | inch   | mm | mm |       |
| ADPN309-0055 | 0.55 | 0.0217 | 1   | 0.0394 | 38 | 3  | ○     |
| ADPN309-0060 | 0.60 | 0.0236 | 1   | 0.0394 | 38 | 3  | ○     |
| ADPN309-0065 | 0.65 | 0.0256 | 1   | 0.0394 | 38 | 3  | ○     |
| ADPN309-0070 | 0.70 | 0.0276 | 1.2 | 0.0472 | 38 | 3  | ○     |
| ADPN309-0075 | 0.75 | 0.0295 | 1.2 | 0.0472 | 38 | 3  | ○     |
| ADPN309-0080 | 0.80 | 0.0315 | 1.2 | 0.0472 | 38 | 3  | ○     |
| ADPN309-0085 | 0.85 | 0.0335 | 1.2 | 0.0472 | 38 | 3  | ○     |
| ADPN309-0090 | 0.90 | 0.0354 | 1.8 | 0.0709 | 38 | 3  | ○     |
| ADPN309-0095 | 0.95 | 0.0374 | 1.8 | 0.0709 | 38 | 3  | ○     |
| ADPN309-0100 | 1.00 | 0.0394 | 2   | 0.0787 | 38 | 3  | ○     |
| ADPN309-0110 | 1.10 | 0.0433 | 2   | 0.0787 | 38 | 3  | ○     |
| ADPN309-0120 | 1.20 | 0.0472 | 2   | 0.0787 | 38 | 3  | ○     |
| ADPN309-0120 | 1.30 | 0.0512 | 3   | 0.1181 | 38 | 3  | ○     |
| ADPN309-0140 | 1.40 | 0.0551 | 3   | 0.1181 | 38 | 3  | ○     |
| ADPN309-0150 | 1.50 | 0.0591 | 3   | 0.1181 | 38 | 3  | ○     |
| ADPN309-0160 | 1.60 | 0.0630 | 3   | 0.1181 | 38 | 3  | ○     |
| ADPN309-0170 | 1.70 | 0.0669 | 3   | 0.1181 | 38 | 3  | ○     |
| ADPN309-0180 | 1.80 | 0.0709 | 4   | 0.1575 | 38 | 3  | ○     |
| ADPN309-0190 | 1.90 | 0.0748 | 4   | 0.1575 | 38 | 3  | ○     |
| ADPN309-0200 | 2.00 | 0.0787 | 4   | 0.1575 | 38 | 3  | ○     |
| ADPN309-0210 | 2.10 | 0.0827 | 4   | 0.1575 | 38 | 3  | ○     |
| ADPN309-0220 | 2.20 | 0.0866 | 4   | 0.1575 | 38 | 3  | ○     |
| ADPN309-0230 | 2.30 | 0.0906 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPN309-0240 | 2.40 | 0.0945 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPN309-0250 | 2.50 | 0.0984 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPN309-0260 | 2.60 | 0.1024 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPN309-0270 | 2.70 | 0.1063 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPN309-0280 | 2.80 | 0.1102 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPN309-0290 | 2.90 | 0.1142 | 5   | 0.1969 | 38 | 3  | ○     |
| ADPN309-0300 | 3.00 | 0.1181 | 5   | 0.1969 | 38 | 3  | ○     |

● US Stock Item ○ Japan Stock Item

| Carbon Steels | Alloy Steels | Tool Steels | Stainless Steels | Cast Iron | Aluminum Alloys | Copper Alloys | Nickel Alloys | Titanium Alloys | Hardened Steels | Plastics |
|---------------|--------------|-------------|------------------|-----------|-----------------|---------------|---------------|-----------------|-----------------|----------|
|               |              | 30-38 HRC   |                  |           |                 |               |               |                 | ≤ 50 HRC        |          |
|               |              |             |                  |           | ◎               | ◎             |               |                 |                 | ◎        |

◎ Best ○ Good △ OK

# CUSTOM SOLUTIONS



Long Drill, Coolant Through Drill



Reamer



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Form Tool



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Lathe Center



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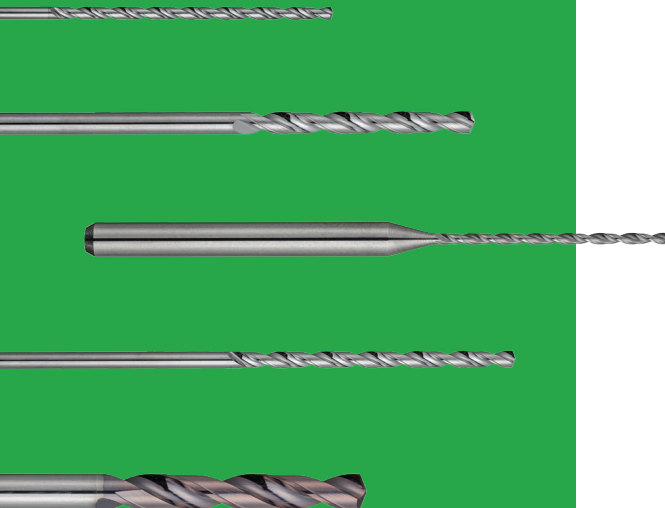


**MEMO**

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Handwriting practice area with 20 sets of dashed lines for tracing on a light blue background.

# CUTTING CONDITIONS



## ADRS, ADR, ADRSL, ADRL, ADR-SP

| Work<br>Materials | Carbon steels<br><br>1010, 1018, 1035, 1045, 1065 |                     | Alloy Steels<br><br>4140, 4340 |                     | Tool Steels<br><br>30~38HRC |                     | Stainless Steels<br>Austenitic<br><br>304, 316 |                     | Stainless Steels<br>Martensitic<br>Ferritic<br><br>420, 440, 430 |                     |
|-------------------|---------------------------------------------------|---------------------|--------------------------------|---------------------|-----------------------------|---------------------|------------------------------------------------|---------------------|------------------------------------------------------------------|---------------------|
|                   |                                                   |                     |                                |                     |                             |                     |                                                |                     |                                                                  |                     |
|                   | ØD<br>mm                                          | Speed<br>RPM        | Feed<br>IPR                    | Speed<br>RPM        | Feed<br>IPR                 | Speed<br>RPM        | Feed<br>IPR                                    | Speed<br>RPM        | Feed<br>IPR                                                      | Speed<br>RPM        |
| Ø0.02~<br>0.09    | 10,000→<br>20,000                                 | 0.00004~<br>0.00006 | 10,000→<br>20,000              | 0.00004~<br>0.00006 | 10,000→<br>20,000           | 0.00004             | 10,000→<br>20,000                              | 0.00002~<br>0.00004 | 10,000→<br>20,000                                                | 0.00004~<br>0.00006 |
| Ø0.10~<br>0.29    | 19,000~<br>13,000                                 | 0.00008~<br>0.0004  | 16,000~<br>11,000              | 0.00006~<br>0.00028 | 13,000~<br>8,800            | 0.00004~<br>0.00016 | 10,000~<br>5,000                               | 0.00002~<br>0.00004 | 13,000~<br>8,800                                                 | 0.00002~<br>0.00004 |
| Ø0.30~<br>0.49    | 13,000~<br>12,000                                 | 0.0004~<br>0.0008   | 11,000~<br>9,700               | 0.00028~<br>0.0004  | 8,800~<br>6,500             | 0.00012~<br>0.0002  | 5,000~<br>4,500                                | 0.00004~<br>0.0002  | 8,800~<br>6,500                                                  | 0.00004~<br>0.0002  |
| Ø0.50~<br>0.99    | 12,000~<br>9,600                                  | 0.0008~<br>0.0016   | 9,700~<br>6,400                | 0.0004~<br>0.0008   | 6,500~<br>4,800             | 0.0002~<br>0.0004   | 4,500~<br>3,200                                | 0.0002~<br>0.0004   | 6,500~<br>4,800                                                  | 0.0002~<br>0.0004   |
| Ø1.00~<br>1.99    | 9,600~<br>6,400                                   | 0.0012~<br>0.0024   | 6,400~<br>4,000                | 0.0008~<br>0.002    | 3,100~<br>2,400             | 0.0004~<br>0.0012   | 3,200~<br>2,400                                | 0.0004~<br>0.0012   | 4,800~<br>3,200                                                  | 0.0004~<br>0.0012   |
| Ø2.00~<br>3.00    | 6,400~<br>4,200                                   | 0.0028~<br>0.004    | 4,000~<br>3,200                | 0.002~<br>0.0032    | 2,400~<br>1,600             | 0.0008~<br>0.0016   | 2,400~<br>1,800                                | 0.0012~<br>0.002    | 3,200~<br>2,100                                                  | 0.0012~<br>0.002    |

| Work<br>Materials | Aluminum Alloys   |                     | Copper Alloys     |                     | Plastics          |                     |
|-------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|
|                   | 6061, 7075        |                     |                   |                     | PEEK              |                     |
| ØD<br>mm          | Speed<br>RPM      | Feed<br>IPR         | Speed<br>RPM      | Feed<br>IPR         | Speed<br>RPM      | Feed<br>IPR         |
| Ø0.02~<br>0.09    | 10,000~<br>30,000 | 0.00004~<br>0.00012 | 10,000~<br>20,000 | 0.00004~<br>0.0002  | 10,000~<br>20,000 | 0.00004~<br>0.00012 |
| Ø0.10~<br>0.29    | 22,200~<br>16,500 | 0.0002~<br>0.0008   | 16,000~<br>11,000 | 0.00008~<br>0.00032 | 20,000~<br>15,000 | 0.0002~<br>0.0004   |
| Ø0.30~<br>0.49    | 16,500~<br>13,000 | 0.0008~<br>0.0016   | 11,000~<br>11,500 | 0.00032~<br>0.0006  | 15,000            | 0.0004~<br>0.0008   |
| Ø0.50~<br>0.99    | 13,000~<br>12,700 | 0.0016~<br>0.0024   | 11,500~<br>9,600  | 0.0006~<br>0.0016   | 15,000~<br>10,000 | 0.0008~<br>0.0016   |
| Ø1.00~<br>1.99    | 12,700~<br>6,400  | 0.0024~<br>0.0047   | 9,600~<br>4,800   | 0.0016~<br>0.0032   | 10,000~<br>6,000  | 0.002~<br>0.0028    |
| Ø2.00~<br>3.00    | 6,400~<br>5,300   | 0.005~<br>0.008     | 4,800~<br>4,200   | 0.0032~<br>0.006    | 6,000~<br>5,000   | 0.0028~<br>0.004    |

| Drill Diameter | Peck Depth                |
|----------------|---------------------------|
| Ø0.02~Ø0.49    | 10% of drill diameter     |
| Ø0.50~Ø1.00    | 20% of drill diameter     |
| Above Ø1.00    | *25-50% of drill diameter |

\*Start at 25% and increase if needed, to 50%

### Remarks:

1. Guide-holes are necessary when drilling under Ø1.0mm (0.0394"). Guide-hole prevents chippings and tool breakage during initial drilling.
2. Runout (with drill in spindle) should be less than 0.003mm (0.00012").
3. If your machine cannot meet the recommended rotation speed, please use the higher speed and adjust the feed rate appropriately.
4. For drills under Ø0.5mm (0.0197"), set machine/spindle at the most stable speed rather than following the recommended conditions shown in table.
5. For drills under Ø0.1mm (0.0039"), it is recommended to start with the lowest rotation speed indicated on the table. Reference: 10,000→20,000 should be started from 10,000.

ADR-DLC, ADRL-DLC

| Work<br>Materials | Aluminum         |                   | Aluminum          |                  | Copper Alloys     |                    |
|-------------------|------------------|-------------------|-------------------|------------------|-------------------|--------------------|
|                   | Casting          |                   | 6061, 7075        |                  |                   |                    |
| ØD<br>mm          | Speed<br>RPM     | Feed<br>IPR       | Speed<br>RPM      | Feed<br>IPR      | Speed<br>RPM      | Feed<br>IPR        |
| Ø0.10~<br>0.29    | 3,200~<br>7,700  | 0.0004~<br>0.0016 | 31,800~<br>22,000 | 0.0004~<br>0.002 | 22,300~<br>11,000 | 0.00008~<br>0.0016 |
| Ø0.30~<br>0.49    | 7,400~<br>9,700  | 0.0016~<br>0.0032 | 21,200~<br>19,500 | 0.002~<br>0.004  | 10,600~<br>9,700  | 0.0016~<br>0.0032  |
| Ø0.50~<br>1.00    | 9,500~<br>19,100 | 0.0032~<br>0.005  | 19,100            | 0.004~<br>0.006  | 9,500~<br>6,400   | 0.0032~<br>0.005   |

| Drill Diameter | Peck Depth            |
|----------------|-----------------------|
| Ø0.10~Ø0.49    | 10% of drill diameter |
| Ø0.50~Ø1.00    | 20% of drill diameter |

Remarks:

- 1. This cutting condition is based on the usage of water-soluble coolant.
- 2. Guide-holes are necessary when drilling under Ø1.0mm (0.0394"). Guide-hole prevents chippings and tool breakage during initial drilling.
- 3. Runout (with drill in spindle) should be less than 0.003mm (0.00012").
- 4. If your machine cannot meet the recommended rotation speed, please use the higher speed and adjust the feed rate appropriately.
- 5. For drills under Ø0.5mm (0.0197"), set machine/spindle at the most stable speed rather than following the recommended conditions shown in table.

SXG30DN, SXG40DN, SXG50DN

| Work Materials |     | Aluminum  |          | Aluminum   |          | Brass     |          | Copper    |          |
|----------------|-----|-----------|----------|------------|----------|-----------|----------|-----------|----------|
|                |     | Casting   |          | 6061, 7075 |          |           |          |           |          |
| ØD mm          | L/D | Speed RPM | Feed IPR | Speed RPM  | Feed IPR | Speed RPM | Feed IPR | Speed RPM | Feed IPR |
| Ø0.5           | 30  | 12,100    | 0.0012   | 9,600      | 0.0008   | 9,600     | 0.00032  | 14,600    | 0.0024   |
|                | 40  | 10,800    |          | 8,300      |          | 8,300     |          | 12,700    |          |
|                | 50  | 9,600     |          | 7,600      |          | 7,600     |          | 11,500    |          |
| Ø1.00          | 30  | 12,100    | 0.0004   | 8,000      | 0.0016   | 9,200     | 0.0002   | 7,300     | 0.0032   |
|                | 40  | 10,500    |          | 7,000      |          | 8,300     |          | 6,400     |          |
|                | 50  | 9,600     |          | 6,400      |          | 7,300     |          | 5,700     |          |
| Ø1.50          | 30  | 6,200     | 0.0008   | 3,200      | 0.0016   | 7,600     | 0.0004   | 4,900     | 0.004    |
|                | 40  | 5,500     |          | 2,800      |          | 6,800     |          | 4,200     |          |
|                | 50  | 4,900     |          | 2,500      |          | 6,200     |          | 3,800     |          |
| Ø2.00          | 30  | 3,000     | 0.0008   | 2,400      | 0.0016   | 7,000     | 0.0004   | 3,700     | 0.005    |
|                | 40  | 2,700     |          | 2,100      |          | 6,200     |          | 3,200     |          |
|                | 50  | 2,400     |          | 1,900      |          | 5,600     |          | 2,900     |          |

| Work Materials |     | Plastics  |          | Plastics  |          |
|----------------|-----|-----------|----------|-----------|----------|
|                |     | Acrylic   |          | PEEK      |          |
| ØD mm          | L/D | Speed RPM | Feed IPR | Speed RPM | Feed IPR |
| Ø0.5           | 30  | 3,200     | 0.0008   | 9,600     | 0.0024   |
|                | 40  | 2,500     |          | 8,300     |          |
|                | 50  | 2,500     |          | 7,600     |          |
| Ø1.00          | 30  | 3,200     | 0.0018   | 2,500     | 0.0024   |
|                | 40  | 2,900     |          | 2,200     |          |
|                | 50  | 2,500     |          | 1,900     |          |
| Ø1.50          | 30  | 2,100     | 0.0016   | 1,700     | 0.0032   |
|                | 40  | 1,900     |          | 1,500     |          |
|                | 50  | 1,700     |          | 1,300     |          |
| Ø2.00          | 30  | 1,600     | 0.002    | 1,300     | 0.005    |
|                | 40  | 1,400     |          | 1,100     |          |
|                | 50  | 1,300     |          | 1,000     |          |

| Drill Diameter | Peck Depth            |
|----------------|-----------------------|
| Ø0.50~Ø2.00    | 20% of drill diameter |

- Remarks:
1. This cutting condition is based on the usage of water-soluble coolant.
  2. Guide-holes are necessary when drilling under Ø1.0mm (0.0394"). Guide-hole prevents chippings and tool breakage during initial drilling.
  3. Runout (with drill in spindle) should be less than 0.003mm (0.00012").
  4. If your machine cannot meet the recommended rotation speed, please use the higher speed and adjust the feed rate appropriately.

ADRS-SV, ADR-SV, ADRSL-SV, ADRL-SV

| Work Materials | Carbon steels                |                 | Alloy Steels  |                 | Tool Steels   |                 | Stainless Steels Austenitic |                 | Stainless Steels Martensitic Ferritic |                 |
|----------------|------------------------------|-----------------|---------------|-----------------|---------------|-----------------|-----------------------------|-----------------|---------------------------------------|-----------------|
|                | 1010, 1018, 1035, 1045, 1065 |                 | 4140, 4340    |                 |               |                 | 304, 316                    |                 | 420, 440, 430                         |                 |
|                |                              |                 |               |                 | 30~38HRC      |                 |                             |                 |                                       |                 |
| ØD mm          | Speed RPM                    | Feed IPR        | Speed RPM     | Feed IPR        | Speed RPM     | Feed IPR        | Speed RPM                   | Feed IPR        | Speed RPM                             | Feed IPR        |
| Ø0.02~0.09     | 10,000→20,000                | 0.00004~0.00006 | 10,000→20,000 | 0.00004~0.00006 | 10,000→20,000 | 0.00004         | 10,000→15,000               | 0.00004~0.00006 | 10,000→20,000                         | 0.00004~0.00008 |
| Ø0.10~0.29     | 25,000~20,000                | 0.00008~0.0004  | 20,000~15,000 | 0.00006~0.00028 | 17,000~13,000 | 0.00004~0.00016 | 15,000~7,500                | 0.00002~0.00004 | 20,000~13,000                         | 0.00002~0.00004 |
| Ø0.30~0.49     | 20,000~18,000                | 0.0004~0.0008   | 15,000        | 0.00028~0.0004  | 13,000~10,000 | 0.00012~0.0002  | 10,000~8,000                | 0.00008~0.0004  | 13,000~9,500                          | 0.00008~0.0004  |
| Ø0.50~0.99     | 18,000~15,000                | 0.0008~0.0016   | 15,000~9,500  | 0.0004~0.0008   | 10,000~7,000  | 0.0002~0.0004   | 8,000~6,000                 | 0.0006~0.0008   | 9,500~7,000                           | 0.0006~0.0008   |
| Ø1.00~1.99     | 15,000~9,500                 | 0.0012~0.0024   | 9,500~6,000   | 0.0008~0.002    | 7,000~4,000   | 0.0004~0.0012   | 6,000~4,000                 | 0.0008~0.0016   | 7,000~4,000                           | 0.0008~0.0016   |
| Ø2.00~3.00     | 9,500~6,300                  | 0.0028~0.004    | 6,000~4,800   | 0.002~0.0032    | 4,000~3,000   | 0.0008~0.0016   | 4,000~3,700                 | 0.0012~0.002    | 4,000~3,000                           | 0.0012~0.002    |

| Work Materials | Aluminum Alloys |               | Copper Alloys |                 |
|----------------|-----------------|---------------|---------------|-----------------|
|                | 6061, 7075      |               |               |                 |
| ØD mm          | Speed RPM       | Feed IPR      | Speed RPM     | Feed IPR        |
| Ø0.02~0.09     | 10,000→30,000   | 0.0004~0.0002 | 10,000→20,000 | 0.00004~0.00012 |
| Ø0.10~0.29     | 30,000~25,000   | 0.0002~0.0008 | 20,000~17,000 | 0.00008~0.00032 |
| Ø0.30~0.49     | 25,500~20,000   | 0.0008~0.0016 | 17,000~15,000 | 0.00032~0.0006  |
| Ø0.50~0.99     | 20,000~18,000   | 0.0016~0.0024 | 15,000~13,000 | 0.0006~0.0016   |
| Ø1.00~1.99     | 18,000~10,000   | 0.0024~0.005  | 13,000~7,500  | 0.0016~0.0032   |
| Ø2.00~3.00     | 10,000~7,000    | 0.005~0.008   | 7,500~6,500   | 0.0032~0.006    |

| Drill Diameter | Peck Depth                |
|----------------|---------------------------|
| Ø0.02~Ø0.49    | 10% of drill diameter     |
| Ø0.50~Ø1.00    | 20% of drill diameter     |
| Above Ø1.00    | *25-50% of drill diameter |

\*Start at 25% and increase if needed, to 50%

Remarks:

1. Guide-holes are necessary when drilling under Ø1.0mm (0.0394"). Guide-hole prevents chippings and tool breakage during initial drilling.
2. Runout (with drill in spindle) should be less than 0.003mm (0.00012").
3. If your machine cannot meet the recommended rotation speed, please use the higher speed and adjust the feed rate appropriately.
4. For drills under Ø0.5mm (0.0197"), set machine/spindle at the most stable speed rather than following the recommended conditions shown in table.
5. For drills under Ø0.1mm (0.0039"), it is recommended to start with the lowest rotation speed indicated on the table. Reference: 10,000→20,000 should be started from 10,000.

ADR-SUS, ADRL-SUS

| Work<br>Materials | Stainless Steels<br>Austenitic |                     | Stainless Steels<br>Martensitic<br>Ferritic |                     | Stainless Steels<br>Precipitation |                     | Nickel Alloys    |                     | Nickel Alloys   |                     |
|-------------------|--------------------------------|---------------------|---------------------------------------------|---------------------|-----------------------------------|---------------------|------------------|---------------------|-----------------|---------------------|
|                   | 304, 316                       |                     | 420, 440, 430                               |                     | 17-4PH                            |                     | Inconel/Hasteroy |                     | Kovar           |                     |
| ØD<br>mm          | Speed<br>RPM                   | Feed<br>IPR         | Speed<br>RPM                                | Feed<br>IPR         | Speed<br>RPM                      | Feed<br>IPR         | Speed<br>RPM     | Feed<br>IPR         | Speed<br>RPM    | Feed<br>IPR         |
| Ø0.10~<br>0.29    | 10,000                         | 0.00001~<br>0.00004 | 12,500~<br>11,200                           | 0.00002~<br>0.00004 | 7,100                             | 0.00001~<br>0.00003 | 4,300            | 0.00001~<br>0.00003 | 9,500           | 0.00001~<br>0.00003 |
| Ø0.30~<br>0.49    | 8,500~<br>7,900                | 0.00006~<br>0.00012 | 10,500~<br>10,000                           | 0.00006~<br>0.00012 | 6,400~<br>6,000                   | 0.00004~<br>0.00008 | 3,900~<br>3,600  | 0.00004~<br>0.00008 | 8,500~<br>7,900 | 0.00006~<br>0.00012 |
| Ø0.50~<br>0.79    | 7,600~<br>6,800                | 0.00016~<br>0.0004  | 9,600~<br>9,100                             | 0.00016~<br>0.0004  | 5,700~<br>5,100                   | 0.00014~<br>0.0003  | 4,900~<br>4,400  | 0.00012~<br>0.00024 | 7,600~<br>6,800 | 0.00016~<br>0.0004  |
| Ø0.80~<br>1.49    | 6,800~<br>6,400                | 0.0006~<br>0.0008   | 8,800~<br>8,000                             | 0.0006~<br>0.0008   | 5,100~<br>4,800                   | 0.0004~<br>0.0006   | 3,100~<br>2,900  | 0.00028~<br>0.0004  | 6,800~<br>6,400 | 0.0006~<br>0.0008   |
| Ø1.50~<br>2.09    | 4,300~<br>3,200                | 0.0008~<br>0.0012   | 5,300~<br>4,000                             | 0.0012<br>0.002     | 3,200~<br>2,400                   | 0.0008~<br>0.0012   | 2,000~<br>1,500  | 0.0008~<br>0.0012   | 4,300~<br>3,200 | 0.0012~<br>0.002    |
| Ø2.10~<br>3.00    | 2,700                          | 0.0012~<br>0.002    | 3,200                                       | 0.0028              | 2,000                             | 0.0016              | 1,200            | 0.0016              | 2,700           | 0.0028              |

| Work<br>Materials | Titanium Alloys |                     |
|-------------------|-----------------|---------------------|
|                   | Ti-6Al-4V       |                     |
| ØD<br>mm          | Speed<br>RPM    | Feed<br>IPR         |
| Ø0.10~<br>0.29    | 7,400           | 0.00001~<br>0.00003 |
| Ø0.30~<br>0.49    | 6,600~<br>6,200 | 0.00004~<br>0.00008 |
| Ø0.50~<br>0.79    | 5,900~<br>5,300 | 0.00012~<br>0.00024 |
| Ø0.80~<br>1.49    | 5,300~<br>5,000 | 0.00028~<br>0.0004  |
| Ø1.50~<br>2.09    | 3,400~<br>2,500 | 0.0008~<br>0.0012   |
| Ø2.10~<br>3.00    | 2,000           | 0.0016              |

| Drill Diameter | Peck Depth                |
|----------------|---------------------------|
| Ø0.10~Ø0.49    | 10% of drill diameter     |
| Ø0.50~Ø1.00    | 20% of drill diameter     |
| Above Ø1.00    | *25-50% of drill diameter |

\*Start at 25% and increase if needed, to 50%

Remarks:

1. Guide-holes are necessary when drilling under Ø1.0mm (0.0394"). Guide-hole prevents chippings and tool breakage during initial drilling.
2. Runout (with drill in spindle) should be less than 0.003mm (0.00012").
3. If your machine cannot meet the recommended rotation speed, please use the higher speed and adjust the feed rate appropriately.
4. For drills under Ø0.5mm (0.0197"), set machine/spindle at the most stable speed rather than following the recommended conditions shown in table.

## ADS, ADSL

| Work Materials | Carbon steels                |               | Alloy Steels |                | Tool Steels |                 | Stainless Steels Austenitic |                 | Stainless Steels Martensitic Ferritic |                 |
|----------------|------------------------------|---------------|--------------|----------------|-------------|-----------------|-----------------------------|-----------------|---------------------------------------|-----------------|
|                | 1010, 1018, 1035, 1045, 1065 |               | 4140, 4340   |                |             |                 | 304, 316                    |                 | 420, 440, 430                         |                 |
|                |                              |               |              |                | 30~38HRC    |                 |                             |                 |                                       |                 |
| ØD mm          | Speed RPM                    | Feed IPR      | Speed RPM    | Feed IPR       | Speed RPM   | Feed IPR        | Speed RPM                   | Feed IPR        | Speed RPM                             | Feed IPR        |
| Ø0.30~0.59     | 12,000~10,000                | 0.0002~0.0004 | 10,000~9500  | 0.00012~0.0004 | 8,500~7,600 | 0.00008~0.00032 | 5,300                       | 0.00002~0.00004 | 8,000~6,300                           | 0.00002~0.00004 |
| Ø0.60~1.09     | 10,000~9,500                 | 0.0004~0.0008 | 8,000~6,400  | 0.00028~0.0006 | 6,400~4,800 | 0.00012~0.0004  | 5,300~4,800                 | 0.00004~0.0002  | 6,300~5,300                           | 0.00004~0.0002  |
| Ø1.10~2.09     | 7,200~6,400                  | 0.0008~0.0024 | 5,800~3,200  | 0.0004~0.0008  | 4,400~3,200 | 0.0004~0.0006   | 4,300~3,200                 | 0.0002~0.0008   | 5,300~4,700                           | 0.0002~0.0008   |
| Ø2.10~2.99     | 6,100~4,400                  | 0.0024~0.0032 | 3,000~2,800  | 0.0008~0.0016  | 3,000~2,800 | 0.0006~0.0008   | 3,000~2,200                 | 0.0008~0.0012   | 4,500~3,300                           | 0.0008~0.0012   |
| Ø3.00~5.99     | 4,300~2,600                  | 0.0032~0.004  | 2,700~2,000  | 0.0016~0.0032  | 2,700~1,900 | 0.0008~0.0016   | 2,100~1,300                 | 0.0012~0.002    | 3,200~1,900                           | 0.0012~0.002    |
| Ø6.00~8.90     | 2,200~1,900                  | 0.004~0.005   | 1,600~1,400  | 0.002~0.004    | 1,600~1,400 | 0.0008~0.0024   | 1,100~800                   | 0.002~0.004     | 1,600~1,200                           | 0.002~0.004     |
| Ø9.00~13.00    | 1,600~1,200                  | 0.004~0.005   | 1,300~1,000  | 0.002~0.004    | 1,200~900   | 0.0016~0.0032   | 700~500                     | 0.002~0.004     | 1,100~750                             | 0.002~0.004     |

| Work Materials | Cast Iron     |               | Aluminum Alloys |              | Copper Alloys |              |
|----------------|---------------|---------------|-----------------|--------------|---------------|--------------|
|                |               |               | 6061, 7075      |              |               |              |
| ØD mm          | Speed RPM     | Feed IPR      | Speed RPM       | Feed IPR     | Speed RPM     | Feed IPR     |
| Ø0.30~0.59     | 12,000~10,000 | 0.0004~0.0008 | 20,000~16,000   | 0.0008~0.002 | 20,000~16,000 | 0.0008~0.002 |
| Ø0.60~1.09     | 10,000~9,500  | 0.0004~0.0016 | 20,000~16,000   | 0.0024~0.006 | 20,000~16,000 | 0.0024~0.006 |
| Ø1.10~2.09     | 8,700~7,200   | 0.0024~0.006  | 16,000~13,000   | 0.004~0.008  | 16,000~13,000 | 0.004~0.008  |
| Ø2.10~2.99     | 6,800~4,900   | 0.0024~0.006  | 13,000~10,000   | 0.004~0.008  | 13,000~10,000 | 0.004~0.008  |
| Ø3.00~5.99     | 4,800~3,200   | 0.004~0.008   | 8,500~6,400     | 0.004~0.008  | 8,500~6,400   | 0.004~0.008  |
| Ø6.00~8.90     | 2,600~2,000   | 0.006~0.01    | 5,300~4,000     | 0.008~0.012  | 5,300~4,000   | 0.008~0.012  |
| Ø9.00~13.00    | 1,800~1,500   | 0.008~0.016   | 3,000~2,500     | 0.016~0.02   | 3,000~2,500   | 0.016~0.02   |

| Drill Diameter | Peck Depth                |
|----------------|---------------------------|
| Ø0.30~Ø0.49    | 10% of drill diameter     |
| Ø0.50~Ø1.00    | 20% of drill diameter     |
| Above Ø1.00    | *25-50% of drill diameter |

\*Start at 25% and increase if needed, to 50%

### Remarks:

1. It is recommended to start with the lowest speed and feed shown in the table. They may be gradually increased in order to obtain the most appropriate condition.
2. To prevent vibration, overhanging of the tool from the chuck should be minimized.
3. If your machine cannot meet the recommended rotation speed, please use the higher speed and adjust the feed rate appropriately.



## ADL, ADLL

| Work Materials | Carbon steels                |               | Alloy Steels |                | Tool Steels |                | Stainless Steels Austenitic |                | Stainless Steels Martensitic Ferritic |                |
|----------------|------------------------------|---------------|--------------|----------------|-------------|----------------|-----------------------------|----------------|---------------------------------------|----------------|
|                | 1010, 1018, 1035, 1045, 1065 |               | 4140, 4340   |                |             |                | 304, 316                    |                | 420, 440, 430                         |                |
|                |                              |               |              |                | 30~38HRC    |                |                             |                |                                       |                |
| ØD mm          | Speed RPM                    | Feed IPR      | Speed RPM    | Feed IPR       | Speed RPM   | Feed IPR       | Speed RPM                   | Feed IPR       | Speed RPM                             | Feed IPR       |
| Ø0.30~0.55     | 10,000                       | 0.00016       | 9,000        | 0.00008        | 7,000       | 0.00006        | 4,000                       | 0.00004        | 4,000                                 | 0.00004        |
| Ø0.60~1.05     | 10,000~9,500                 | 0.0004~0.0008 | 8,000~6,400  | 0.00028~0.0006 | 6,400~4,800 | 0.00012~0.0004 | 4,800~3,800                 | 0.00004~0.0002 | 4,800~3,800                           | 0.00004~0.0002 |
| Ø1.10~2.05     | 7,200~6,400                  | 0.0008~0.0024 | 5,800~3,200  | 0.0004~0.0008  | 4,400~3,200 | 0.0004~0.0006  | 4,300~3,200                 | 0.0002~0.0008  | 4,300~3,200                           | 0.0002~0.0008  |
| Ø2.10~2.95     | 6,100~4,400                  | 0.0024~0.0032 | 3,000~2,800  | 0.0008~0.0016  | 3,000~2,800 | 0.0006~0.0008  | 3,000~2,200                 | 0.0004~0.0012  | 3,000~2,200                           | 0.0004~0.0012  |
| Ø3.00~5.95     | 4,300~2,600                  | 0.0032~0.004  | 2,700~2,000  | 0.0016~0.0032  | 2,700~1,900 | 0.0008~0.0016  | 2,100~1,900                 | 0.0012~0.002   | 2,100~1,900                           | 0.0012~0.002   |
| Ø6.00~8.90     | 2,200~1,900                  | 0.004~0.005   | 1,600~1,400  | 0.002~0.004    | 1,600~1,400 | 0.0008~0.0024  | 1,600~1,200                 | 0.002~0.004    | 1,600~1,200                           | 0.002~0.004    |
| Ø9.00~13.0     | 1,600~1,200                  | 0.004~0.005   | 1,300~1,000  | 0.002~0.004    | 1,200~900   | 0.0016~0.0032  | 1,100~750                   | 0.002~0.004    | 1,100~750                             | 0.002~0.004    |

| Work Materials | Cast Iron    |               | Aluminum Alloys |               | Copper Alloys |               |
|----------------|--------------|---------------|-----------------|---------------|---------------|---------------|
|                |              |               | 6061, 7075      |               |               |               |
|                | Speed RPM    | Feed IPR      | Speed RPM       | Feed IPR      | Speed RPM     | Feed IPR      |
| ØD mm          | Speed RPM    | Feed IPR      | Speed RPM       | Feed IPR      | Speed RPM     | Feed IPR      |
| Ø0.30~0.55     | 10,000       | 0.0002        | 10,000          | 0.0004~0.0008 | 10,000        | 0.0004~0.0008 |
| Ø0.60~1.05     | 10,000~9,500 | 0.0004~0.0016 | 20,000~12,000   | 0.0024~0.006  | 20,000~12,000 | 0.0024~0.006  |
| Ø1.10~2.05     | 8,700~7,200  | 0.0024~0.006  | 16,000~13,000   | 0.004~0.008   | 16,000~13,000 | 0.004~0.008   |
| Ø2.10~2.95     | 6,800~4,900  | 0.0024~0.006  | 13,000~10,000   | 0.004~0.008   | 13,000~10,000 | 0.004~0.008   |
| Ø3.00~5.95     | 4,800~3,200  | 0.004~0.008   | 8,500~6,400     | 0.008~0.01    | 8,500~6,400   | 0.008~0.01    |
| Ø6.00~8.90     | 2,600~2,000  | 0.006~0.01    | 5,300~4,000     | 0.008~0.012   | 5,300~4,000   | 0.008~0.012   |
| Ø9.00~13.0     | 1,800~1,500  | 0.008~0.012   | 3,000~2,500     | 0.012~0.016   | 3,000~2,500   | 0.012~0.016   |

| Drill Diameter | Peck Depth                |
|----------------|---------------------------|
| Ø0.30~Ø0.49    | 10% of drill diameter     |
| Ø0.50~Ø1.00    | 20% of drill diameter     |
| Above Ø1.00    | *25-50% of drill diameter |

\*Start at 25% and increase if needed, to 50%

### Remarks:

1. This drilling condition is based on the length from the holder to drill tip, which is 1.1 times the flute length. When the length from the holder is longer than 1.1 times of the flute length, please reduce the speed and feed appropriately.
2. It is recommended to start with the lowest speed and feed shown in the table. They may be gradually increased in order to obtain the most appropriate condition.
3. The use of drill bushes are recommended for drilling stable and precise holes.

## V-ADS

| Work Materials | Carbon steels                |                | Alloy Steels  |                | Tool Steels  |                 | Stainless Steels Austenitic |                 | Stainless Steels Martensitic Ferritic |                 |
|----------------|------------------------------|----------------|---------------|----------------|--------------|-----------------|-----------------------------|-----------------|---------------------------------------|-----------------|
|                | 1010, 1018, 1035, 1045, 1065 |                | 4140, 4340    |                |              |                 | 304, 316                    |                 | 420, 440, 430                         |                 |
|                |                              |                |               |                | 30~38HRC     |                 |                             |                 |                                       |                 |
| ØD mm          | Speed RPM                    | Feed IPR       | Speed RPM     | Feed IPR       | Speed RPM    | Feed IPR        | Speed RPM                   | Feed IPR        | Speed RPM                             | Feed IPR        |
| Ø0.30~0.59     | 14,000~12,500                | 0.00024~0.0005 | 14,000~12,500 | 0.00016~0.0005 | 11,000~9,500 | 0.00008~0.00032 | 6,600                       | 0.00002~0.00004 | 10,000~8,000                          | 0.00002~0.00004 |
| Ø0.60~1.09     | 11,000~9,500                 | 0.0005~0.001   | 10,000~8,000  | 0.00032~0.0008 | 8,000~6,400  | 0.00012~0.0004  | 6,600~6,200                 | 0.00004~0.0002  | 8,000~6,900                           | 0.00004~0.0002  |
| Ø1.10~2.09     | 8,700~8,000                  | 0.001~0.0028   | 7,200~6,400   | 0.0005~0.001   | 5,800~4,000  | 0.0004~0.0006   | 5,600~4,200                 | 0.0002~0.0008   | 6,900~6,200                           | 0.0002~0.0008   |
| Ø2.10~2.99     | 7,600~5,500                  | 0.0028~0.004   | 6,000~4,400   | 0.001~0.002    | 4,000~3,300  | 0.0006~0.0008   | 3,900~2,900                 | 0.0008~0.0012   | 5,900~4,300                           | 0.0008~0.0012   |
| Ø3.00~6.00     | 5,300~3,200                  | 0.004~0.005    | 4,200~2,500   | 0.002~0.004    | 3,200~1,900  | 0.0008~0.0016   | 2,800~1,700                 | 0.0012~0.002    | 4,200~2,500                           | 0.0012~0.002    |

| Work Materials | Cast Iron     |              |
|----------------|---------------|--------------|
| ØD mm          | Speed RPM     | Feed IPR     |
| Ø0.30~0.59     | 14,000~12,500 | 0.0005~0.001 |
| Ø0.60~1.09     | 12,000        | 0.0005~0.002 |
| Ø1.10~2.09     | 11,000~8,000  | 0.0028~0.008 |
| Ø2.10~2.99     | 7,600~5,500   | 0.0028~0.008 |
| Ø3.00~6.00     | 5,300~3,900   | 0.005~0.01   |

| Drill Diameter | Peck Depth                |
|----------------|---------------------------|
| Ø0.30~Ø0.49    | 10% of drill diameter     |
| Ø0.50~Ø1.00    | 20% of drill diameter     |
| Above Ø1.00    | *25-50% of drill diameter |

\*Start at 25% and increase if needed, to 50%

### Remarks:

1. It is recommended to start with the lowest speed and feed shown in the table. They may be gradually increased in order to obtain the most appropriate condition.
2. To prevent vibration, overhanging of the tool from the chuck should be minimized.
3. If your machine cannot meet the recommended rotation speed, please use the higher speed and adjust the feed rate appropriately.

ASWR, ASWD

| Work<br>Materials | Aluminum Alloys |                     | Plastics     |                     |
|-------------------|-----------------|---------------------|--------------|---------------------|
|                   | 6061, 7075      |                     | PEEK         |                     |
| ØD<br>mm          | Speed<br>RPM    | Feed<br>IPR         | Speed<br>RPM | Feed<br>IPR         |
| Ø0.10~<br>0.29    | 20,000          | 0.00004~<br>0.00012 | 17,000       | 0.00004~<br>0.00012 |
| Ø0.30~<br>0.45    | 20,000          | 0.0002~<br>0.0008   | 17,000       | 0.0002~<br>0.0008   |
| Ø0.50~<br>0.75    | 17,000          | 0.0004~<br>0.0012   | 14,500       | 0.0004~<br>0.0012   |
| Ø0.80~<br>0.95    | 15,000          | 0.0008~<br>0.0016   | 12,800       | 0.0008~<br>0.0016   |
| Ø1.00~<br>1.40    | 12,000          | 0.0012~<br>0.002    | 10,000       | 0.0012~<br>0.002    |
| Ø1.50~<br>1.90    | 9,000           | 0.0012~<br>0.002    | 7,700        | 0.0012~<br>0.002    |
| Ø2.00~<br>2.90    | 6,500           | 0.0012~<br>0.002    | 5,500        | 0.0012~<br>0.002    |
| Ø3.00~<br>3.50    | 4,200           | 0.0012~<br>0.002    | 3,500        | 0.002               |
| Ø4.00~<br>4.50    | 3,200           | 0.002               | 2,900        | 0.002               |
| Ø5.00~<br>5.50    | 2,500           | 0.002               | 2,200        | 0.002               |
| Ø6.00             | 2,200           | 0.002               | 1,900        | 0.002               |

| Drill Diameter | Peck Depth                |
|----------------|---------------------------|
| Ø0.10~Ø0.49    | 10% of drill diameter     |
| Ø0.50~Ø1.00    | 20% of drill diameter     |
| Above Ø1.00    | *25-50% of drill diameter |

\*Start at 25% and increase if needed, to 50%

Remarks:

1. Runout (with drill in spindle) should be less than 0.003mm (0.00012").
2. If your machine cannot meet the recommended rotation speed, please use the higher speed and adjust the feed rate appropriately.
3. For drills under Ø0.5mm (0.0197"), set machine/spindle at the most stable speed rather than following the recommended conditions shown in table.

# ADPF30, V-ADPF30, ADPF309

| Work<br>Materials | Carbon steels<br><br>1010, 1018, 1035, 1045, 1065 |                     | Alloy Steels<br><br>4140, 4340 |                     | Tool Steels       |                     | Stainless Steels<br>Austenitic<br><br>304, 316 |                     | Stainless Steels<br>Martensitic<br>Ferritic<br><br>420, 440, 430 |                     |
|-------------------|---------------------------------------------------|---------------------|--------------------------------|---------------------|-------------------|---------------------|------------------------------------------------|---------------------|------------------------------------------------------------------|---------------------|
|                   |                                                   |                     |                                |                     | 30~38HRC          |                     |                                                |                     |                                                                  |                     |
|                   | ØD<br>mm                                          | Speed<br>RPM        | Feed<br>IPR                    | Speed<br>RPM        | Feed<br>IPR       | Speed<br>RPM        | Feed<br>IPR                                    | Speed<br>RPM        | Feed<br>IPR                                                      | Speed<br>RPM        |
| Ø0.02~<br>0.09    | 10,000→<br>20,000                                 | 0.00004~<br>0.00006 | 10,000→<br>20,000              | 0.00004~<br>0.00006 | 10,000→<br>20,000 | 0.00004             | 10,000→<br>20,000                              | 0.00002~<br>0.00004 | 10,000→<br>20,000                                                | 0.00004~<br>0.00008 |
| Ø0.10~<br>0.29    | 15,000~<br>10,000                                 | 0.00006~<br>0.00028 | 15,000~<br>10,000              | 0.00006~<br>0.00028 | 13,000~<br>8,800  | 0.00004~<br>0.00016 | 10,000~<br>5,000                               | 0.00004~<br>0.00012 | 13,000~<br>8,800                                                 | 0.00002~<br>0.00004 |
| Ø0.30~<br>0.45    | 10,000~<br>9,500                                  | 0.00028~<br>0.0004  | 10,000~<br>9,500               | 0.00028~<br>0.0004  | 8,800~<br>6,500   | 0.00012~<br>0.0002  | 5,000~<br>4,500                                | 0.00004~<br>0.0002  | 8,800~<br>6,500                                                  | 0.00004~<br>0.0002  |
| Ø0.50~<br>0.95    | 9,500~<br>7,700                                   | 0.0004~<br>0.0008   | 9,500~<br>7,700                | 0.0004~<br>0.0008   | 6,500~<br>4,800   | 0.0002~<br>0.0004   | 4,500~<br>3,200                                | 0.0002~<br>0.0004   | 6,500~<br>4,800                                                  | 0.0002~<br>0.0004   |
| Ø1.00~<br>1.90    | 7,700~<br>5,100                                   | 0.0008~<br>0.002    | 7,700~<br>5,100                | 0.0008~<br>0.002    | 3,100~<br>2,400   | 0.0004~<br>0.0012   | 3,200~<br>2,400                                | 0.0004~<br>0.0012   | 4,800~<br>3,200                                                  | 0.0004~<br>0.0012   |
| Ø2.00~<br>3.00    | 5,100~<br>4,200                                   | 0.0024              | 5,100~<br>4,200                | 0.0024              | 2,400~<br>1,600   | 0.0008~<br>0.0016   | 2,400~<br>1,800                                | 0.0012~<br>0.002    | 3,200~<br>2,100                                                  | 0.0012~<br>0.002    |

# ADPN30, ADPN309

| Work Materials | Aluminum Alloys<br>6061, 7075 |                | Copper Alloys |                 | Plastics      |                |
|----------------|-------------------------------|----------------|---------------|-----------------|---------------|----------------|
|                |                               |                |               |                 | PEEK          |                |
| ØD<br>mm       | Speed<br>RPM                  | Feed<br>IPR    | Speed<br>RPM  | Feed<br>IPR     | Speed<br>RPM  | Feed<br>IPR    |
| Ø0.02~0.09     | 10,000→20,000                 | 0.00008~0.0002 | 10,000→20,000 | 0.00008~0.0002  | 10,000→20,000 | 0.00008~0.0002 |
| Ø0.10~0.29     | 18,000~13,000                 | 0.0002~0.0008  | 16,000~11,000 | 0.00008~0.00032 | 18,000~13,000 | 0.0002~0.0008  |
| Ø0.30~0.45     | 13,000~10,000                 | 0.0008~0.0012  | 11,000~11,500 | 0.00032~0.0006  | 13,000~10,000 | 0.0008~0.0012  |
| Ø0.50~0.95     | 10,000                        | 0.0012         | 11,500~9,600  | 0.0006~0.0016   | 10,000        | 0.0012         |
| Ø1.00~1.90     | 10,000~5,100                  | 0.0012~0.0016  | 9,600~4,800   | 0.0016~0.0032   | 10,000~5,100  | 0.0012~0.0016  |
| Ø2.00~3.00     | 5,100~4,200                   | 0.0016         | 4,800~4,200   | 0.0032~0.006    | 5,100~4,200   | 0.0016         |

| Drill Diameter | Peck Depth                |
|----------------|---------------------------|
| Ø0.02~Ø0.49    | 10% of drill diameter     |
| Ø0.50~Ø1.00    | 20% of drill diameter     |
| Above Ø1.00    | *25-50% of drill diameter |

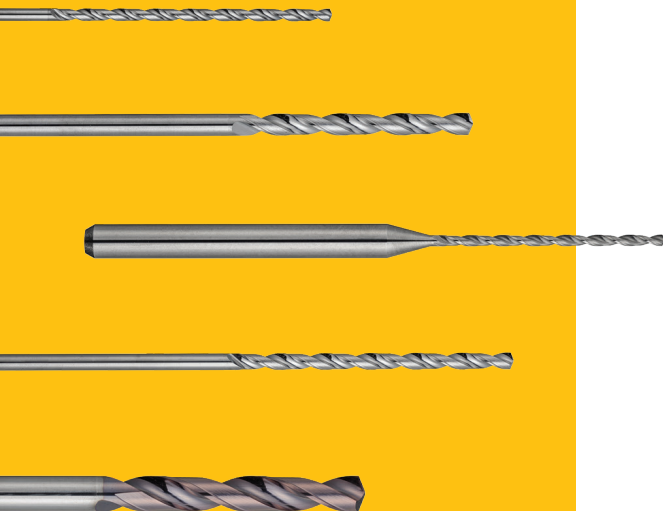
\*Start at 25% and increase if needed, to 50%

## Remarks:

- Runout (with drill in spindle) should be less than 0.003mm (0.00012").
- If your machine cannot meet the recommended rotation speed, please use the higher speed and adjust the feed rate appropriately.
- For drills under Ø0.5mm (0.0197"), set machine/spindle at the most stable speed rather than following the recommended conditions shown in table.
- For drills under Ø0.1mm (0.0039"), it is recommended to start with the lowest rotation speed indicated on the table. Reference: 10,000→20,000 should be started from 10,000.



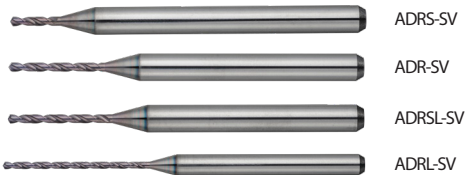
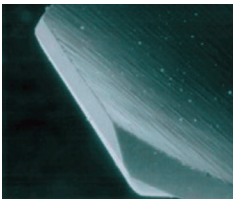
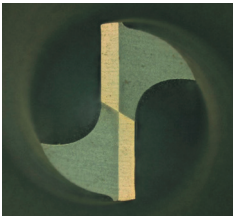
# TECHNICAL DATA



# ADRS-SV, ADR-SV, ADRSL-SV, ADRL-SV

## Features

- The wide chip pocket ensures smooth chip evacuation, even under high-speed and high-feed drilling conditions.
- Thinning on drills over 1.6 mm reduces runout during initial drilling.
- The Fine Coating System (FCS Coating) retains sharp edges while balancing wear resistance.

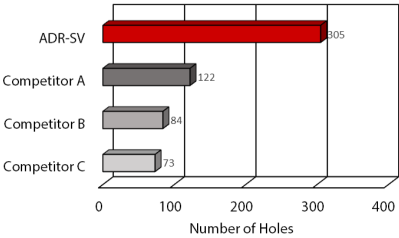


Four Types of Flute Length Options

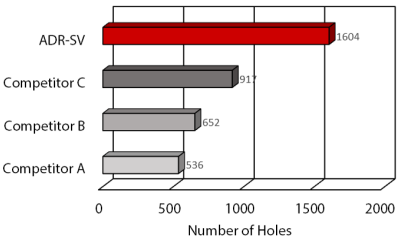
## Performance

### Long Tool Life

1050 (Carbon Steel)



4140 (Alloy Steel)

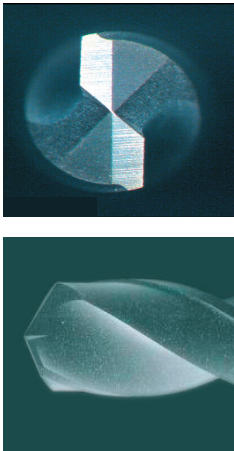
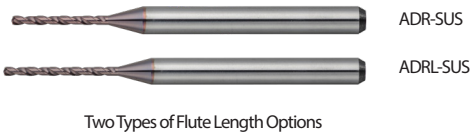


| Cutting Condition |             |            |         |
|-------------------|-------------|------------|---------|
| Drill             | ADR-SV-0030 | RPM        | 20,000  |
| Hole Diameter     | Ø0.3 mm     | IPR        | 0.0004  |
| Hole Depth        | 3 mm        | Peck Depth | 0.0012" |

# ADR-SUS, ADRL-SUS

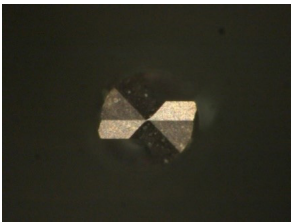
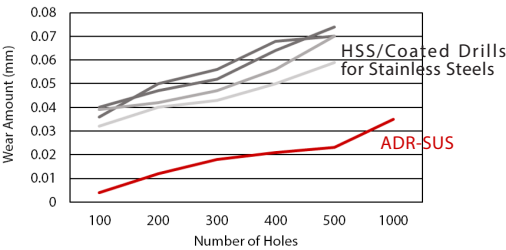
## Features

- The thicker web on these drills enhances tool stiffness and stability.
- Thinning on drills over Ø0.3 mm reduces thrust load, minimizing work hardening and welding caused by cutting heat during stainless steel drilling.



## Performance

### Primary Relief Wear Comparison



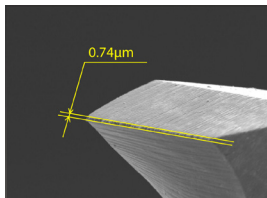
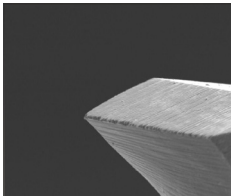
| Cutting Condition |                       |
|-------------------|-----------------------|
| Drill             | ADR-SUS-0100          |
| Hole Diameter     | Ø1 mm                 |
| Hole Depth        | 6 mm                  |
| Material          | 304 (Stainless Steel) |



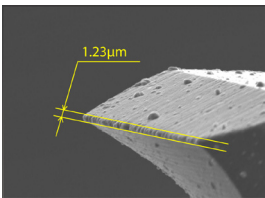
# ADR-DLC, ADRL-DLC

## Features

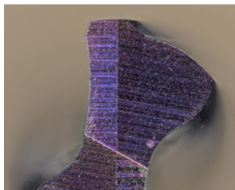
- The DLC Shine Coating retains a sharp edge, a low friction coefficient, and a smooth surface, reducing cutting force.
- The DLC Shine Coating prevents built-up edges, ensuring excellent surface finish and high workpiece accuracy.



DLC Shine Coating



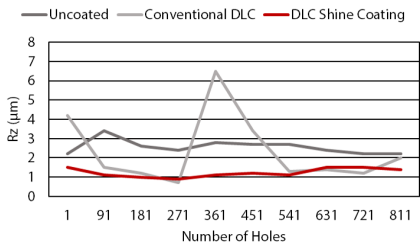
Conventional DLC



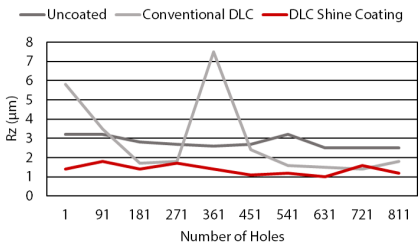
## Performance

### Surface Roughness Comparison

Entrance of Hole



Exit of Hole



| Cutting Condition |                        |            |         |
|-------------------|------------------------|------------|---------|
| Drill             | ADR-DLC-0100 Ø1 mm     | RPM        | 19,100  |
| Hole Depth        | 8 mm                   | IPR        | 0.0047  |
| Material          | ADC12 (Aluminum Alloy) | Peck Depth | 0.0197" |

# SXG30DN, SXG40DN, SXG50DN

## Features

- Four reverse threading grooves on the outer circumference increase coolant supply efficiency.
- Increased coolant retention improves cooling and lubrication, enabling stable machining even in deep holes.
- The synergistic effect of the grooves and marginless design prevents chip bite and improves surface roughness.



## Performance

### Surface Roughness Comparison

5052 (Aluminum Alloy)



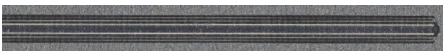
SXG50DN: Rz 0.36



General Purpose Long Drill

| Cutting Condition |              |
|-------------------|--------------|
| Drill             | SXG50DN-0050 |
| Hole Diameter     | Ø0.5 mm      |
| Hole Depth        | 25 mm        |
| RPM               | 7,600        |
| IPR               | 0.0008       |
| Peck Depth        | 0.004"       |

ADC12 (Aluminum Alloy)



SXG50DN: Rz 0.49



General Purpose Long Drill

| Cutting Condition |              |
|-------------------|--------------|
| Drill             | SXG50DN-0050 |
| Hole Diameter     | Ø0.5 mm      |
| Hole Depth        | 25 mm        |
| RPM               | 9,500        |
| IPR               | 0.0012       |
| Peck Depth        | 0.004"       |

Brass



SXG50DN: Rz 0.22



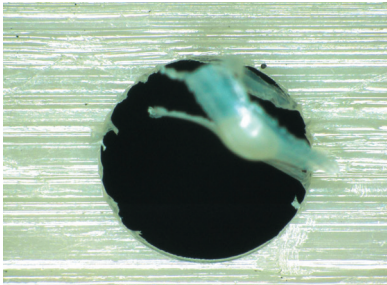
General Purpose Long Drill

| Cutting Condition |              |
|-------------------|--------------|
| Drill             | SXG50DN-0050 |
| Hole Diameter     | Ø0.5 mm      |
| Hole Depth        | 25 mm        |
| RPM               | 7,600        |
| IPR               | 0.0003       |
| Peck Depth        | 0.004"       |

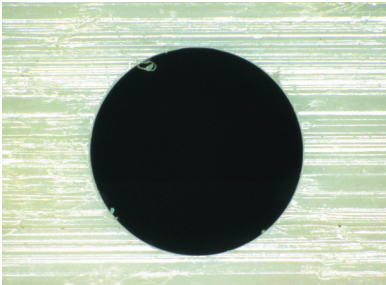
# ASWR, ASWD

Performance

Exit Burr Comparison

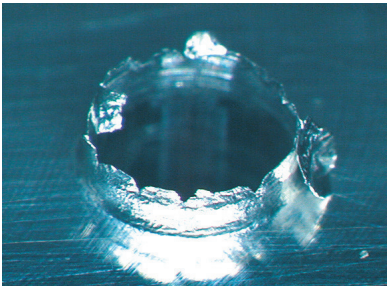


General Purpose Drill

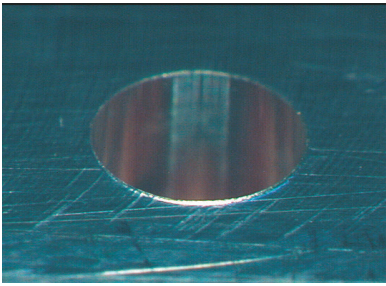


Sweep Cut Drill

| Cutting Condition |           |     |       |
|-------------------|-----------|-----|-------|
| Drill             | ASWR-0200 | RPM | 3,200 |
| Hole Diameter     | Ø2 mm     | IPR | 0.002 |
| Material          | PEEK      |     |       |



Genera Purpose Drill



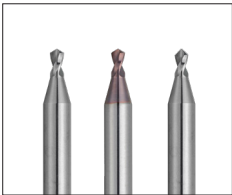
Sweep Cut Drill

| Cutting Condition |                       |     |       |
|-------------------|-----------------------|-----|-------|
| Drill             | ASWR-0100             | RPM | 6,400 |
| Hole Diameter     | Ø1 mm                 | IPR | 0.002 |
| Material          | 5052 (Aluminum Alloy) |     |       |

# ADPF/N30, V-ADPF30, ADPF/N309

## Features

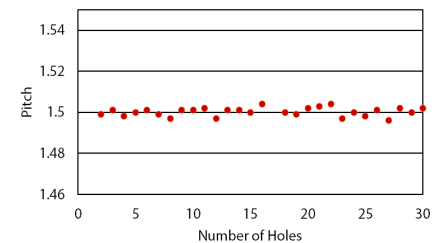
- The small chisel edge width over Ø1 mm creates a narrower guide hole base than the core thickness of the succeeding drill.
- Thinning on drills over Ø0.3 mm to Ø0.95 mm enhances positioning accuracy.



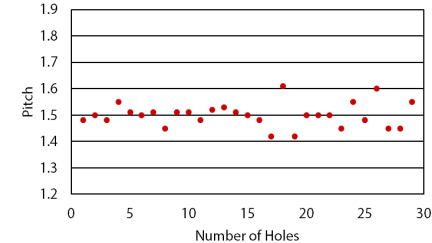
## Performance

### Hole Pitch Accuracy Comparison

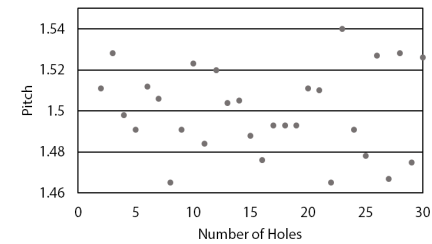
Entrance of Hole: **with ADPF30**



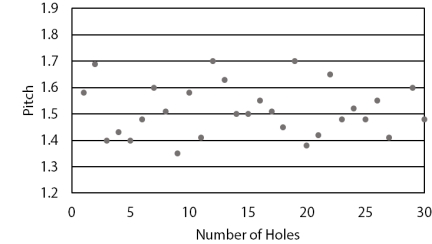
Exit of Hole: **with ADPF30**



Entrance of Hole: **without ADPF30**



Exit of Hole: **without ADPF30**



| Cutting Condition |                  |                |              |            |           |
|-------------------|------------------|----------------|--------------|------------|-----------|
| Hole Diameter     | Ø0.5 mm          | Guide Drill    | ADPF30-0050  | Drill      | ADRL-0050 |
| Hole Depth        | 10 mm            | RPM            | 9,500        | RPM        | 6,500     |
| Material          | P21 (Mold Steel) | IPR            | 0.0004       | IPR        | 0.0006    |
|                   |                  | Drilling Depth | 0.5 mm (1xD) | Peck Depth | 0.002"    |

## MEMO

## Safety Precautions

- Touching sharp cutting edge with bare can cause injury.
- When removing tools from cases, be careful to avoid touching the cutting edge directly.
- Please wear safety glasses as the tools may shatter.
- Please check dimensions of tools and work materials before starting operation.
- The tool should be firmly attached to the holder to prevent vibrations.
- Recommended cutting conditions shown in this catalog should be used as a general reference. It may be necessary to adjust according to the actual work conditions.
- Using a non-water-cutting fluid could lead to fires due to sparks generated during processing or heat caused by breakage. Please take proper fire-prevention measurement before starting operation.



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